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**Table 1. Graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

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| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 | 303,031 | 234,760 | 26,310 | 12,079 | 16,892 | 8,415 | 10,702 | 46,398 | 36,191 | 77,773 | |
| 1976 | 305,465 | 238,808 | 26,631 | 12,819 | 17,071 | 8,627 | 11,285 | 47,728 | 37,458 | 77,189 | |
| 1977 | 311,741 | 243,056 | 26,855 | 13,455 | 16,052 | 9,108 | 11,677 | 49,234 | 38,617 | 78,058 | |
| 1978 ¹ | 304,301 | 236,604 | 26,274 | 13,276 | 14,812 | 9,847 | 11,869 | 47,923 | 37,522 | 75,081 | |
| 1979 | 319,092 | 247,364 | 26,695 | 13,737 | 15,031 | 11,690 | 12,240 | 48,199 | 39,766 | 80,006 | |
| 1980 | 325,649 | 251,337 | 26,934 | 14,051 | 15,311 | 13,578 | 12,452 | 47,596 | 40,610 | 80,805 | |
| 1981 | 332,041 | 252,486 | 27,357 | 14,266 | 15,881 | 16,437 | 12,355 | 46,639 | 40,666 | 78,885 | |
| 1982 | 338,916 | 255,229 | 28,186 | 15,020 | 17,157 | 19,812 | 12,583 | 45,970 | 40,073 | 76,428 | |
| 1983 | 347,017 | 255,898 | 29,453 | 15,453 | 17,358 | 23,333 | 12,429 | 45,644 | 40,905 | 71,323 | |
| 1984 ² | 349,698 | 256,986 | 30,056 | 15,505 | 17,443 | 25,526 | 12,226 | 45,763 | 40,931 | 69,536 | |
| 1985 ² | 358,059 | 262,068 | 30,981 | 15,420 | 17,563 | 29,769 | 11,561 | 46,112 | 40,721 | 69,941 | |
| 1986 ² | 368,104 | 266,230 | 32,246 | 15,066 | 17,949 | 31,349 | 11,458 | 46,764 | 41,241 | 70,157 | |
| 1987 ² | 373,341 | 269,388 | 32,727 | 14,371 | 18,508 | 32,051 | 11,118 | 46,747 | 42,612 | 71,254 | |
| 1988 | 375,277 | 272,448 | 32,962 | 13,867 | 19,077 | 32,227 | 11,135 | 47,565 | 43,963 | 71,652 | |
| 1989 | 382,747 | 278,704 | 33,616 | 13,643 | 19,247 | 32,482 | 11,190 | 48,852 | 45,528 | 74,146 | |
| 1990 | 397,135 | 289,510 | 34,075 | 13,984 | 19,774 | 34,257 | 11,316 | 49,989 | 48,167 | 77,948 | |
| 1991 | 412,697 | 299,121 | 34,710 | 14,480 | 19,952 | 34,610 | 11,506 | 51,778 | 51,343 | 80,742 | |
| 1992 | 430,644 | 312,609 | 35,348 | 15,347 | 20,355 | 36,293 | 11,827 | 54,177 | 53,484 | 85,778 | |
| 1993 | 435,886 | 319,028 | 35,318 | 15,805 | 20,000 | 36,189 | 11,914 | 56,452 | 54,557 | 88,793 | |
| 1994 | 431,251 | 318,228 | 34,449 | 16,042 | 19,579 | 34,128 | 12,199 | 58,143 | 54,554 | 89,134 | |
| 1995 | 422,555 | 315,356 | 33,417 | 15,805 | 18,509 | 33,432 | 12,367 | 58,736 | 53,641 | 89,449 | |
| 1996 | 415,363 | 312,140 | 32,355 | 15,280 | 18,015 | 34,592 | 11,914 | 58,128 | 53,209 | 88,647 | |
| 1997 | 407,644 | 306,636 | 31,108 | 14,644 | 16,759 | 36,010 | 11,810 | 57,135 | 53,142 | 86,028 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 | 68,271 | 1,670 | 5,034 | 12,560 | 16,320 | 11,663 | 8,601 | 2,352 | 10,071 | 25,519 | |
| 1976 | 66,657 | 1,477 | 5,205 | 11,995 | 15,926 | 10,687 | 8,313 | 2,375 | 10,679 | 28,290 | |
| 1977 | 68,685 | 1,518 | 5,201 | 12,335 | 17,406 | 10,438 | 8,722 | 2,559 | 10,506 | 33,675 | |
| 1978 ¹ | 67,697 | 1,463 | 5,341 | 12,358 | 17,127 | 9,494 | 8,638 | 2,570 | 10,706 | 35,611 | |
| 1979 | 71,728 | 1,481 | 5,605 | 12,822 | 17,715 | 10,729 | 9,251 | 2,756 | 11,369 | 38,517 | |
| 1980 | 74,312 | 1,737 | 6,015 | 13,097 | 19,132 | 9,698 | 9,888 | 2,910 | 11,835 | 41,462 | |
| 1981 | 79,555 | 1,883 | 6,496 | 14,089 | 20,113 | 9,737 | 10,618 | 3,125 | 13,494 | 43,117 | |
| 1982 | 83,687 | 1,941 | 7,189 | 14,122 | 21,927 | 9,577 | 11,467 | 3,124 | 14,340 | 43,418 | |
| 1983 | 91,119 | 2,305 | 7,563 | 14,910 | 25,295 | 9,247 | 12,911 | 3,447 | 15,441 | 43,457 | |
| 1984 ² | 92,712 | 2,340 | 7,373 | 15,192 | 26,388 | 9,282 | 13,855 | 3,657 | 14,625 | 44,972 | |
| 1985 ² | 95,991 | 2,538 | 7,150 | 14,902 | 28,203 | 10,499 | 14,157 | 3,943 | 14,599 | 45,962 | |
| 1986 ² | 101,874 | 2,804 | 7,012 | 14,976 | 29,969 | 11,529 | 15,713 | 4,208 | 15,663 | 47,438 | |
| 1987 ² | 103,953 | 3,015 | 7,111 | 14,682 | 31,399 | 12,220 | 16,366 | 4,366 | 14,794 | 48,171 | |
| 1988 | 102,829 | 3,223 | 6,618 | 14,811 | 32,035 | 11,393 | 16,151 | 4,337 | 14,261 | 49,336 | |
| 1989 | 104,043 | 3,524 | 6,460 | 14,909 | 33,257 | 11,094 | 16,265 | 4,594 | 13,940 | 51,820 | |
| 1990 | 107,625 | 3,934 | 6,735 | 15,542 | 33,722 | 11,248 | 16,879 | 4,941 | 14,624 | 55,043 | |
| 1991 | 113,576 | 4,120 | 7,127 | 17,398 | 35,182 | 12,676 | 17,730 | 5,160 | 14,183 | 58,565 | |
| 1992 | 118,035 | 4,036 | 7,397 | 19,572 | 36,460 | 13,525 | 18,637 | 5,512 | 12,896 | 62,988 | |
| 1993 | 116,858 | 3,940 | 7,516 | 19,583 | 35,314 | 13,596 | 18,477 | 5,363 | 13,069 | 68,563 | |
| 1994 | 113,023 | 3,715 | 7,608 | 19,925 | 33,050 | 13,661 | 17,761 | 5,191 | 12,112 | 73,291 | |
| 1995 | 107,199 | 3,343 | 7,424 | 19,218 | 30,747 | 13,143 | 16,363 | 4,920 | 12,041 | 77,177 | |
| 1996 | 103,223 | 3,208 | 7,373 | 18,528 | 29,736 | 12,399 | 15,509 | 4,713 | 11,757 | 78,856 | |
| 1997 | 101,008 | 3,083 | 7,247 | 17,033 | 30,617 | 11,725 | 15,044 | 4,649 | 11,610 | 79,460 | |

¹ Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 2. Male graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

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| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 | 233,818 | 168,833 | 22,816 | 11,176 | 11,933 | 7,549 | 9,570 | 32,511 | 20,518 | 52,760 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1979 | 229,812 | 163,960 | 22,202 | 10,850 | 11,009 | 9,367 | 9,575 | 30,318 | 19,424 | 51,215 | |
| 1980 | 231,253 | 163,280 | 22,338 | 10,844 | 11,247 | 10,491 | 9,594 | 29,295 | 19,027 | 50,444 | |
| 1981 | 232,193 | 160,384 | 22,348 | 10,848 | 11,400 | 12,228 | 9,533 | 27,992 | 17,900 | 48,135 | |
| 1982 | 235,340 | 160,428 | 22,767 | 11,297 | 12,079 | 14,366 | 9,498 | 26,797 | 16,976 | 46,648 | |
| 1983 | 240,498 | 159,186 | 23,576 | 11,552 | 12,158 | 16,719 | 9,290 | 26,293 | 16,648 | 42,950 | |
| 1984 ² | 242,152 | 159,737 | 23,898 | 11,632 | 12,275 | 18,653 | 9,088 | 26,246 | 16,180 | 41,765 | |
| 1985 ² | 247,421 | 162,510 | 24,474 | 11,493 | 12,209 | 22,208 | 8,570 | 26,208 | 15,597 | 41,751 | |
| 1986 ² | 253,686 | 164,177 | 25,384 | 11,119 | 12,470 | 23,497 | 8,505 | 26,293 | 15,377 | 41,532 | |
| 1987 ² | 256,149 | 165,159 | 25,613 | 10,592 | 12,912 | 24,036 | 8,166 | 26,314 | 15,683 | 41,843 | |
| 1988 | 254,005 | 164,300 | 25,465 | 10,062 | 13,301 | 24,033 | 8,038 | 26,304 | 15,502 | 41,595 | |
| 1989 | 256,849 | 166,406 | 25,815 | 9,785 | 13,262 | 24,494 | 8,045 | 26,618 | 15,673 | 42,714 | |
| 1990 | 263,394 | 170,441 | 26,007 | 9,865 | 13,575 | 26,058 | 7,981 | 26,947 | 15,822 | 44,186 | |
| 1991 | 271,845 | 173,984 | 26,146 | 10,025 | 13,654 | 26,340 | 7,939 | 27,643 | 16,556 | 45,681 | |
| 1992 | 280,397 | 179,595 | 26,504 | 10,489 | 13,806 | 27,838 | 8,059 | 28,702 | 16,650 | 47,547 | |
| 1993 | 279,289 | 180,123 | 26,116 | 10,745 | 13,362 | 27,767 | 7,826 | 29,399 | 16,567 | 48,341 | |
| 1994 | 272,120 | 177,146 | 25,290 | 10,689 | 13,044 | 26,043 | 7,911 | 29,988 | 16,416 | 47,765 | |
| 1995 | 262,341 | 173,156 | 24,327 | 10,336 | 12,248 | 25,306 | 7,935 | 29,890 | 15,877 | 47,237 | |
| 1996 | 253,629 | 168,658 | 23,303 | 9,786 | 11,794 | 25,802 | 7,502 | 29,360 | 15,403 | 45,708 | |
| 1997 | 245,615 | 163,322 | 22,257 | 9,187 | 10,875 | 26,133 | 7,277 | 28,513 | 15,499 | 43,581 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 | 64,985 | 1,485 | 4,827 | 11,507 | 16,696 | 9,683 | 8,449 | 2,376 | 9,962 | 11,109 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 1979 | 65,852 | 1,432 | 4,991 | 11,503 | 16,782 | 9,473 | 8,782 | 2,468 | 10,421 | 11,028 | |
| 1980 | 67,973 | 1,663 | 5,336 | 11,732 | 18,149 | 8,343 | 9,354 | 2,607 | 10,789 | 11,707 | |
| 1981 | 71,809 | 1,816 | 5,718 | 12,515 | 18,837 | 8,194 | 9,987 | 2,735 | 12,007 | 11,367 | |
| 1982 | 74,912 | 1,831 | 6,288 | 12,373 | 20,376 | 7,958 | 10,748 | 2,704 | 12,634 | 10,958 | |
| 1983 | 81,312 | 2,182 | 6,547 | 13,051 | 23,227 | 7,729 | 12,106 | 2,999 | 13,471 | 10,430 | |
| 1984 ² | 82,415 | 2,208 | 6,401 | 13,165 | 24,175 | 7,674 | 12,899 | 3,189 | 12,704 | 10,501 | |
| 1985 ² | 84,911 | 2,375 | 6,146 | 12,755 | 25,768 | 8,719 | 13,146 | 3,340 | 12,662 | 10,795 | |
| 1986 ² | 89,509 | 2,604 | 5,973 | 12,829 | 27,061 | 9,434 | 14,554 | 3,533 | 13,521 | 11,049 | |
| 1987 ² | 90,990 | 2,791 | 5,957 | 12,579 | 28,301 | 9,976 | 15,070 | 3,637 | 12,679 | 11,795 | |
| 1988 | 89,705 | 2,996 | 5,543 | 12,517 | 28,757 | 9,300 | 14,749 | 3,581 | 12,262 | 11,407 | |
| 1989 | 90,443 | 3,281 | 5,431 | 12,474 | 29,742 | 8,984 | 14,867 | 3,784 | 11,880 | 11,884 | |
| 1990 | 92,953 | 3,645 | 5,589 | 12,853 | 30,007 | 9,111 | 15,437 | 4,048 | 12,263 | 12,284 | |
| 1991 | 97,861 | 3,793 | 5,870 | 14,296 | 31,311 | 10,321 | 16,219 | 4,173 | 11,878 | 13,053 | |
| 1992 | 100,802 | 3,688 | 6,003 | 15,918 | 32,167 | 10,870 | 16,939 | 4,443 | 10,774 | 13,837 | |
| 1993 | 99,166 | 3,583 | 6,017 | 15,725 | 30,992 | 11,003 | 16,703 | 4,336 | 10,807 | 15,213 | |
| 1994 | 94,974 | 3,357 | 6,082 | 15,714 | 28,946 | 10,866 | 15,938 | 4,122 | 9,949 | 16,253 | |
| 1995 | 89,185 | 2,992 | 5,863 | 14,986 | 26,652 | 10,388 | 14,686 | 3,861 | 9,757 | 17,065 | |
| 1996 | 84,971 | 2,856 | 5,731 | 14,228 | 25,607 | 9,685 | 13,873 | 3,653 | 9,338 | 18,109 | |
| 1997 | 82,293 | 2,712 | 5,538 | 12,874 | 26,158 | 9,115 | 13,265 | 3,555 | 9,076 | 18,806 | |

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 3. Female graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

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| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 | 77,923 | 74,223 | 4,039 | 2,279 | 4,119 | 1,559 | 2,107 | 16,723 | 18,099 | 25,298 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1979 | 89,280 | 83,404 | 4,493 | 2,887 | 4,022 | 2,323 | 2,665 | 17,881 | 20,342 | 28,791 | |
| 1980 | 94,396 | 88,057 | 4,596 | 3,207 | 4,064 | 3,087 | 2,858 | 18,301 | 21,583 | 30,361 | |
| 1981 | 99,848 | 92,102 | 5,009 | 3,418 | 4,481 | 4,209 | 2,822 | 18,647 | 22,766 | 30,750 | |
| 1982 | 103,576 | 94,801 | 5,419 | 3,723 | 5,078 | 5,446 | 3,085 | 19,173 | 23,097 | 29,780 | |
| 1983 | 106,519 | 96,712 | 5,877 | 3,901 | 5,200 | 6,614 | 3,139 | 19,351 | 24,257 | 28,373 | |
| 1984 ² | 107,546 | 97,249 | 6,158 | 3,873 | 5,168 | 6,873 | 3,138 | 19,517 | 24,751 | 27,771 | |
| 1985 ² | 110,638 | 99,558 | 6,507 | 3,927 | 5,354 | 7,561 | 2,991 | 19,904 | 25,124 | 28,190 | |
| 1986 ² | 114,418 | 102,053 | 6,862 | 3,947 | 5,479 | 7,852 | 2,953 | 20,471 | 25,864 | 28,625 | |
| 1987 ² | 117,192 | 104,229 | 7,114 | 3,779 | 5,596 | 8,015 | 2,952 | 20,433 | 26,929 | 29,411 | |
| 1988 | 121,272 | 108,148 | 7,497 | 3,805 | 5,776 | 8,194 | 3,097 | 21,261 | 28,461 | 30,057 | |
| 1989 | 125,898 | 112,298 | 7,801 | 3,858 | 5,985 | 7,988 | 3,145 | 22,234 | 29,855 | 31,432 | |
| 1990 | 133,741 | 119,069 | 8,068 | 4,119 | 6,199 | 8,199 | 3,335 | 23,042 | 32,345 | 33,762 | |
| 1991 | 140,852 | 125,137 | 8,564 | 4,455 | 6,298 | 8,270 | 3,567 | 24,135 | 34,787 | 35,061 | |
| 1992 | 150,247 | 133,014 | 8,844 | 4,858 | 6,549 | 8,455 | 3,768 | 25,475 | 36,834 | 38,231 | |
| 1993 | 156,597 | 138,905 | 9,202 | 5,060 | 6,638 | 8,422 | 4,088 | 27,053 | 37,990 | 40,452 | |
| 1994 | 159,131 | 141,082 | 9,159 | 5,353 | 6,535 | 8,085 | 4,288 | 28,155 | 38,138 | 41,369 | |
| 1995 | 160,214 | 142,200 | 9,090 | 5,469 | 6,261 | 8,126 | 4,432 | 28,846 | 37,764 | 42,212 | |
| 1996 | 161,734 | 143,482 | 9,052 | 5,494 | 6,221 | 8,790 | 4,412 | 28,768 | 37,806 | 42,939 | |
| 1997 | 162,029 | 143,314 | 8,851 | 5,457 | 5,884 | 9,877 | 4,533 | 28,622 | 37,643 | 42,447 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 | 3,700 | 33 | 374 | 828 | 710 | 755 | 273 | 183 | 544 | 22,566 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 1979 | 5,876 | 49 | 614 | 1,319 | 933 | 1,256 | 469 | 288 | 948 | 27,489 | |
| 1980 | 6,339 | 74 | 679 | 1,365 | 983 | 1,355 | 534 | 303 | 1,046 | 29,755 | |
| 1981 | 7,746 | 67 | 778 | 1,574 | 1,276 | 1,543 | 631 | 390 | 1,487 | 31,750 | |
| 1982 | 8,775 | 110 | 901 | 1,749 | 1,551 | 1,619 | 719 | 420 | 1,706 | 32,460 | |
| 1983 | 9,807 | 123 | 1,016 | 1,859 | 2,068 | 1,518 | 805 | 448 | 1,970 | 33,027 | |
| 1984 ² | 10,297 | 132 | 972 | 2,027 | 2,213 | 1,608 | 956 | 468 | 1,921 | 34,471 | |
| 1985 ² | 11,080 | 163 | 1,004 | 2,147 | 2,435 | 1,780 | 1,011 | 603 | 1,937 | 35,167 | |
| 1986 ² | 12,365 | 200 | 1,039 | 2,147 | 2,908 | 2,095 | 1,159 | 675 | 2,142 | 36,389 | |
| 1987 ² | 12,963 | 224 | 1,154 | 2,103 | 3,098 | 2,244 | 1,296 | 729 | 2,115 | 36,376 | |
| 1988 | 13,124 | 227 | 1,075 | 2,294 | 3,278 | 2,093 | 1,402 | 756 | 1,999 | 37,929 | |
| 1989 | 13,600 | 243 | 1,029 | 2,435 | 3,515 | 2,110 | 1,398 | 810 | 2,060 | 39,936 | |
| 1990 | 14,672 | 289 | 1,146 | 2,689 | 3,715 | 2,137 | 1,442 | 893 | 2,361 | 42,759 | |
| 1991 | 15,715 | 327 | 1,257 | 3,102 | 3,871 | 2,355 | 1,511 | 987 | 2,305 | 45,512 | |
| 1992 | 17,233 | 348 | 1,394 | 3,654 | 4,293 | 2,655 | 1,698 | 1,069 | 2,122 | 49,151 | |
| 1993 | 17,692 | 357 | 1,499 | 3,858 | 4,322 | 2,593 | 1,774 | 1,027 | 2,262 | 53,350 | |
| 1994 | 18,049 | 358 | 1,526 | 4,211 | 4,104 | 2,795 | 1,823 | 1,069 | 2,163 | 57,038 | |
| 1995 | 18,014 | 351 | 1,561 | 4,232 | 4,095 | 2,755 | 1,677 | 1,059 | 2,284 | 60,112 | |
| 1996 | 18,252 | 352 | 1,642 | 4,300 | 4,129 | 2,714 | 1,636 | 1,060 | 2,419 | 60,747 | |
| 1997 | 18,715 | 371 | 1,709 | 4,159 | 4,459 | 2,610 | 1,779 | 1,094 | 2,534 | 60,654 | |

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 4. Full-time graduate students in science, engineering, and health fields
in all institutions, by field: 1975-97**

Page 1 of 1

| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 | 202,300 | 164,538 | 21,916 | 9,557 | 10,694 | 4,473 | 8,889 | 36,874 | 24,105 | 48,030 | |
| 1976 | 204,861 | 167,979 | 22,252 | 10,091 | 10,952 | 4,748 | 9,436 | 37,905 | 25,643 | 46,952 | |
| 1977 | 206,452 | 169,296 | 22,505 | 10,424 | 10,365 | 4,604 | 9,711 | 38,415 | 25,703 | 47,569 | |
| 1978 ¹ | 201,782 | 164,277 | 22,135 | 10,369 | 9,769 | 4,930 | 9,727 | 37,788 | 24,754 | 44,805 | |
| 1979 | 209,044 | 169,077 | 22,535 | 10,625 | 9,667 | 5,853 | 9,952 | 37,996 | 25,848 | 46,601 | |
| 1980 | 214,465 | 171,838 | 22,917 | 10,871 | 9,901 | 6,587 | 10,168 | 37,690 | 26,671 | 47,033 | |
| 1981 | 218,003 | 172,278 | 23,307 | 10,934 | 10,152 | 7,445 | 10,312 | 37,277 | 26,570 | 46,281 | |
| 1982 | 221,921 | 172,166 | 24,038 | 11,319 | 10,813 | 9,171 | 10,136 | 36,688 | 25,667 | 44,334 | |
| 1983 | 229,456 | 175,548 | 25,204 | 11,968 | 10,955 | 10,600 | 9,976 | 36,740 | 26,561 | 43,544 | |
| 1984 ² | 231,015 | 175,848 | 25,852 | 11,734 | 11,309 | 11,436 | 9,908 | 37,114 | 25,969 | 42,526 | |
| 1985 ² | 233,992 | 178,096 | 26,669 | 11,334 | 11,816 | 13,861 | 9,250 | 37,001 | 25,335 | 42,830 | |
| 1986 ² | 242,826 | 182,660 | 27,762 | 11,249 | 12,388 | 15,020 | 9,341 | 37,809 | 26,255 | 42,836 | |
| 1987 ² | 247,205 | 185,273 | 28,412 | 10,435 | 13,043 | 15,336 | 9,094 | 38,235 | 27,256 | 43,462 | |
| 1988 | 250,657 | 187,650 | 28,574 | 10,192 | 13,512 | 15,133 | 9,122 | 39,209 | 28,118 | 43,790 | |
| 1989 | 256,906 | 192,531 | 29,207 | 10,021 | 13,681 | 15,606 | 9,070 | 40,348 | 29,348 | 45,250 | |
| 1990 | 265,399 | 199,422 | 29,485 | 10,244 | 13,865 | 16,689 | 9,100 | 40,945 | 30,618 | 48,476 | |
| 1991 | 277,174 | 206,140 | 30,117 | 10,373 | 14,256 | 16,516 | 9,289 | 42,700 | 32,258 | 50,631 | |
| 1992 | 290,510 | 216,084 | 30,673 | 10,986 | 14,679 | 17,486 | 9,452 | 44,389 | 34,162 | 54,257 | |
| 1993 | 294,030 | 220,233 | 30,611 | 11,367 | 14,530 | 17,374 | 9,468 | 46,481 | 34,782 | 55,620 | |
| 1994 | 293,048 | 221,482 | 30,043 | 11,470 | 14,226 | 16,674 | 9,492 | 48,017 | 35,288 | 56,272 | |
| 1995 | 287,253 | 219,479 | 28,902 | 11,275 | 13,410 | 16,490 | 9,620 | 48,330 | 35,222 | 56,230 | |
| 1996 | 284,194 | 218,343 | 27,956 | 10,826 | 12,966 | 17,173 | 9,298 | 47,744 | 35,468 | 56,912 | |
| 1997 | 280,612 | 215,018 | 26,892 | 10,550 | 12,153 | 18,320 | 9,110 | 46,998 | 35,522 | 55,473 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 | 37,762 | 1,245 | 3,515 | 7,363 | 8,278 | 4,152 | 4,931 | 1,787 | 6,491 | 17,387 | |
| 1976 | 36,882 | 1,165 | 3,691 | 7,025 | 8,147 | 3,578 | 4,919 | 1,860 | 6,497 | 18,585 | |
| 1977 | 37,156 | 1,187 | 3,873 | 7,094 | 8,528 | 3,343 | 4,883 | 1,951 | 6,297 | 20,324 | |
| 1978 ¹ | 37,505 | 1,140 | 3,938 | 7,335 | 8,509 | 3,249 | 4,950 | 1,973 | 6,411 | 21,248 | |
| 1979 | 39,967 | 1,152 | 4,218 | 7,623 | 9,039 | 3,743 | 5,428 | 2,135 | 6,629 | 22,746 | |
| 1980 | 42,627 | 1,327 | 4,490 | 7,958 | 9,963 | 3,736 | 5,841 | 2,254 | 7,058 | 23,983 | |
| 1981 | 45,725 | 1,483 | 4,989 | 8,799 | 10,450 | 3,603 | 6,422 | 2,454 | 7,525 | 24,073 | |
| 1982 | 49,755 | 1,522 | 5,608 | 9,381 | 11,533 | 3,807 | 7,267 | 2,478 | 8,159 | 22,875 | |
| 1983 | 53,908 | 1,840 | 5,869 | 9,804 | 13,265 | 3,288 | 8,330 | 2,704 | 8,808 | 22,599 | |
| 1984 ² | 55,167 | 1,854 | 5,734 | 10,086 | 13,925 | 3,393 | 8,698 | 2,872 | 8,605 | 22,907 | |
| 1985 ² | 55,896 | 1,994 | 5,546 | 9,749 | 14,799 | 3,456 | 8,875 | 3,093 | 8,384 | 23,295 | |
| 1986 ² | 60,166 | 2,154 | 5,594 | 9,971 | 16,290 | 3,807 | 9,789 | 3,370 | 9,191 | 23,356 | |
| 1987 ² | 61,932 | 2,372 | 5,674 | 9,628 | 17,101 | 4,156 | 10,230 | 3,436 | 9,335 | 23,861 | |
| 1988 | 63,007 | 2,533 | 5,359 | 9,946 | 17,706 | 4,295 | 10,416 | 3,466 | 9,286 | 24,537 | |
| 1989 | 64,375 | 2,772 | 5,282 | 9,964 | 18,466 | 4,658 | 10,492 | 3,720 | 9,021 | 25,813 | |
| 1990 | 65,977 | 3,010 | 5,443 | 10,128 | 18,675 | 4,770 | 10,867 | 3,930 | 9,154 | 27,431 | |
| 1991 | 71,034 | 3,325 | 5,788 | 11,328 | 19,904 | 5,598 | 11,687 | 4,058 | 9,346 | 29,866 | |
| 1992 | 74,426 | 3,306 | 5,946 | 12,454 | 20,996 | 6,081 | 12,383 | 4,274 | 8,986 | 32,099 | |
| 1993 | 73,797 | 3,262 | 6,041 | 12,458 | 20,370 | 5,902 | 12,395 | 4,249 | 9,120 | 35,649 | |
| 1994 | 71,566 | 3,000 | 6,105 | 12,641 | 19,412 | 5,910 | 11,875 | 4,108 | 8,515 | 39,081 | |
| 1995 | 67,774 | 2,693 | 5,957 | 12,248 | 18,187 | 5,342 | 11,128 | 3,880 | 8,339 | 41,895 | |
| 1996 | 65,851 | 2,576 | 5,909 | 11,791 | 17,989 | 5,128 | 10,690 | 3,693 | 8,075 | 44,259 | |
| 1997 | 65,594 | 2,529 | 5,784 | 11,259 | 18,926 | 5,071 | 10,432 | 3,661 | 7,932 | 46,230 | |

¹ Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 5. Male full-time graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

Page 1 of 1

| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | 156,169 | 121,312 | 19,205 | 8,457 | 8,476 | 4,006 | 7,945 | 26,183 | 14,591 | 32,449 | |
| 1977 | 154,398 | 119,499 | 19,293 | 8,641 | 8,083 | 3,845 | 7,903 | 25,866 | 13,949 | 31,919 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 1979 | 151,981 | 115,444 | 19,044 | 8,404 | 7,497 | 4,803 | 7,745 | 24,480 | 13,277 | 30,194 | |
| 1980 | 153,138 | 114,365 | 19,214 | 8,388 | 7,595 | 5,184 | 7,778 | 23,804 | 12,779 | 29,623 | |
| 1981 | 154,075 | 112,963 | 19,306 | 8,361 | 7,612 | 5,718 | 7,884 | 23,189 | 12,007 | 28,886 | |
| 1982 | 156,404 | 111,896 | 19,641 | 8,532 | 8,022 | 6,860 | 7,592 | 22,144 | 11,223 | 27,882 | |
| 1983 | 161,537 | 113,248 | 20,371 | 8,995 | 8,037 | 7,961 | 7,448 | 21,961 | 11,361 | 27,114 | |
| 1984 ² | 162,399 | 113,279 | 20,755 | 8,876 | 8,328 | 8,693 | 7,328 | 22,012 | 10,714 | 26,573 | |
| 1985 ² | 164,198 | 114,583 | 21,241 | 8,500 | 8,614 | 10,806 | 6,853 | 21,798 | 10,232 | 26,539 | |
| 1986 ² | 169,871 | 116,675 | 22,022 | 8,336 | 8,984 | 11,703 | 6,955 | 21,992 | 10,263 | 26,420 | |
| 1987 ² | 172,140 | 117,491 | 22,384 | 7,759 | 9,481 | 12,005 | 6,716 | 22,099 | 10,422 | 26,625 | |
| 1988 | 172,342 | 116,954 | 22,208 | 7,444 | 9,794 | 11,795 | 6,640 | 22,404 | 10,199 | 26,470 | |
| 1989 | 175,106 | 118,867 | 22,547 | 7,268 | 9,746 | 12,355 | 6,557 | 22,736 | 10,467 | 27,191 | |
| 1990 | 178,695 | 121,416 | 22,664 | 7,317 | 9,821 | 13,218 | 6,454 | 22,789 | 10,642 | 28,511 | |
| 1991 | 185,090 | 123,739 | 22,845 | 7,197 | 10,035 | 13,035 | 6,424 | 23,498 | 10,957 | 29,748 | |
| 1992 | 191,791 | 128,029 | 23,173 | 7,588 | 10,250 | 13,936 | 6,454 | 24,230 | 11,171 | 31,227 | |
| 1993 | 190,864 | 128,266 | 22,888 | 7,815 | 10,096 | 13,791 | 6,281 | 24,920 | 11,189 | 31,286 | |
| 1994 | 186,675 | 126,686 | 22,277 | 7,676 | 9,810 | 13,127 | 6,166 | 25,493 | 11,131 | 31,006 | |
| 1995 | 179,834 | 123,556 | 21,238 | 7,387 | 9,213 | 12,840 | 6,158 | 25,297 | 10,903 | 30,520 | |
| 1996 | 174,783 | 120,758 | 20,413 | 6,955 | 8,797 | 13,088 | 5,847 | 24,737 | 10,794 | 30,127 | |
| 1997 | 170,126 | 117,037 | 19,458 | 6,676 | 8,179 | 13,525 | 5,598 | 24,031 | 10,811 | 28,759 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | 34,857 | 1,142 | 3,457 | 6,512 | 7,850 | 3,199 | 4,797 | 1,751 | 6,149 | 7,503 | |
| 1977 | 34,899 | 1,160 | 3,595 | 6,553 | 8,146 | 2,967 | 4,742 | 1,809 | 5,927 | 7,490 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 1979 | 36,537 | 1,116 | 3,789 | 6,729 | 8,585 | 3,164 | 5,170 | 1,922 | 6,062 | 7,595 | |
| 1980 | 38,773 | 1,273 | 4,025 | 7,059 | 9,405 | 3,071 | 5,525 | 2,023 | 6,392 | 7,725 | |
| 1981 | 41,112 | 1,432 | 4,456 | 7,673 | 9,739 | 2,915 | 6,075 | 2,167 | 6,655 | 7,403 | |
| 1982 | 44,508 | 1,449 | 4,936 | 8,140 | 10,715 | 3,042 | 6,834 | 2,170 | 7,222 | 6,869 | |
| 1983 | 48,289 | 1,760 | 5,100 | 8,509 | 12,302 | 2,673 | 7,847 | 2,380 | 7,718 | 6,678 | |
| 1984 ² | 49,120 | 1,768 | 5,002 | 8,648 | 12,775 | 2,769 | 8,137 | 2,518 | 7,503 | 6,675 | |
| 1985 ² | 49,615 | 1,868 | 4,792 | 8,257 | 13,591 | 2,821 | 8,316 | 2,654 | 7,316 | 6,747 | |
| 1986 ² | 53,196 | 2,006 | 4,806 | 8,484 | 14,823 | 3,073 | 9,162 | 2,849 | 7,993 | 6,707 | |
| 1987 ² | 54,649 | 2,205 | 4,800 | 8,230 | 15,552 | 3,422 | 9,498 | 2,867 | 8,075 | 7,292 | |
| 1988 | 55,388 | 2,365 | 4,567 | 8,381 | 16,024 | 3,559 | 9,581 | 2,887 | 8,024 | 7,231 | |
| 1989 | 56,239 | 2,592 | 4,486 | 8,315 | 16,644 | 3,751 | 9,637 | 3,081 | 7,733 | 7,685 | |
| 1990 | 57,279 | 2,811 | 4,547 | 8,347 | 16,719 | 3,862 | 10,019 | 3,238 | 7,736 | 8,029 | |
| 1991 | 61,351 | 3,071 | 4,803 | 9,309 | 17,739 | 4,556 | 10,745 | 3,316 | 7,812 | 8,450 | |
| 1992 | 63,762 | 3,043 | 4,849 | 10,126 | 18,570 | 4,906 | 11,297 | 3,467 | 7,504 | 9,033 | |
| 1993 | 62,598 | 2,971 | 4,875 | 9,934 | 17,926 | 4,729 | 11,210 | 3,447 | 7,506 | 9,926 | |
| 1994 | 59,989 | 2,722 | 4,912 | 9,855 | 17,021 | 4,612 | 10,658 | 3,268 | 6,941 | 10,753 | |
| 1995 | 56,278 | 2,417 | 4,734 | 9,431 | 15,747 | 4,191 | 9,993 | 3,064 | 6,701 | 11,367 | |
| 1996 | 54,025 | 2,293 | 4,594 | 8,937 | 15,441 | 4,037 | 9,500 | 2,878 | 6,345 | 12,350 | |
| 1997 | 53,089 | 2,226 | 4,425 | 8,353 | 16,096 | 3,973 | 9,143 | 2,806 | 6,067 | 13,081 | |

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 6. Female full-time graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

Page 1 of 1

| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | 48,692 | 46,667 | 3,047 | 1,634 | 2,476 | 742 | 1,491 | 11,722 | 11,052 | 14,503 | |
| 1977 | 52,054 | 49,797 | 3,212 | 1,783 | 2,282 | 759 | 1,808 | 12,549 | 11,754 | 15,650 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 1979 | 57,063 | 53,633 | 3,491 | 2,221 | 2,170 | 1,050 | 2,207 | 13,516 | 12,571 | 16,407 | |
| 1980 | 61,327 | 57,473 | 3,703 | 2,483 | 2,306 | 1,403 | 2,390 | 13,886 | 13,892 | 17,410 | |
| 1981 | 63,928 | 59,315 | 4,001 | 2,573 | 2,540 | 1,727 | 2,428 | 14,088 | 14,563 | 17,395 | |
| 1982 | 65,517 | 60,270 | 4,397 | 2,787 | 2,791 | 2,311 | 2,544 | 14,544 | 14,444 | 16,452 | |
| 1983 | 67,919 | 62,300 | 4,833 | 2,973 | 2,918 | 2,639 | 2,528 | 14,779 | 15,200 | 16,430 | |
| 1984 ² | 68,616 | 62,569 | 5,097 | 2,858 | 2,981 | 2,743 | 2,580 | 15,102 | 15,255 | 15,953 | |
| 1985 ² | 69,794 | 63,513 | 5,428 | 2,834 | 3,202 | 3,055 | 2,397 | 15,203 | 15,103 | 16,291 | |
| 1986 ² | 72,955 | 65,985 | 5,740 | 2,913 | 3,404 | 3,317 | 2,386 | 15,817 | 15,992 | 16,416 | |
| 1987 ² | 75,065 | 67,782 | 6,028 | 2,676 | 3,562 | 3,331 | 2,378 | 16,136 | 16,834 | 16,837 | |
| 1988 | 78,315 | 70,696 | 6,366 | 2,748 | 3,718 | 3,338 | 2,482 | 16,805 | 17,919 | 17,320 | |
| 1989 | 81,800 | 73,664 | 6,660 | 2,753 | 3,935 | 3,251 | 2,513 | 17,612 | 18,881 | 18,059 | |
| 1990 | 86,704 | 78,006 | 6,821 | 2,927 | 4,044 | 3,471 | 2,646 | 18,156 | 19,976 | 19,965 | |
| 1991 | 92,084 | 82,401 | 7,272 | 3,176 | 4,221 | 3,481 | 2,865 | 19,202 | 21,301 | 20,883 | |
| 1992 | 98,719 | 88,055 | 7,500 | 3,398 | 4,429 | 3,550 | 2,998 | 20,159 | 22,991 | 23,030 | |
| 1993 | 103,166 | 91,967 | 7,723 | 3,552 | 4,434 | 3,583 | 3,187 | 21,561 | 23,593 | 24,334 | |
| 1994 | 106,373 | 94,796 | 7,766 | 3,794 | 4,416 | 3,547 | 3,326 | 22,524 | 24,157 | 25,266 | |
| 1995 | 107,419 | 95,923 | 7,664 | 3,888 | 4,197 | 3,650 | 3,462 | 23,033 | 24,319 | 25,710 | |
| 1996 | 109,411 | 97,585 | 7,543 | 3,871 | 4,169 | 4,085 | 3,451 | 23,007 | 24,674 | 26,785 | |
| 1997 | 110,486 | 97,981 | 7,434 | 3,874 | 3,974 | 4,795 | 3,512 | 22,967 | 24,711 | 26,714 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 | 2,025 | 23 | 234 | 513 | 297 | 379 | 122 | 109 | 348 | 11,082 | |
| 1977 | 2,257 | 27 | 278 | 541 | 382 | 376 | 141 | 142 | 370 | 12,834 | |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 1979 | 3,430 | 36 | 429 | 894 | 454 | 579 | 258 | 213 | 567 | 15,151 | |
| 1980 | 3,854 | 54 | 465 | 899 | 558 | 665 | 316 | 231 | 666 | 16,258 | |
| 1981 | 4,613 | 51 | 533 | 1,126 | 711 | 688 | 347 | 287 | 870 | 16,670 | |
| 1982 | 5,247 | 73 | 672 | 1,241 | 818 | 765 | 433 | 308 | 937 | 16,006 | |
| 1983 | 5,619 | 80 | 769 | 1,295 | 963 | 615 | 483 | 324 | 1,090 | 15,921 | |
| 1984 ² | 6,047 | 86 | 732 | 1,438 | 1,150 | 624 | 561 | 354 | 1,102 | 16,232 | |
| 1985 ² | 6,281 | 126 | 754 | 1,492 | 1,208 | 635 | 559 | 439 | 1,068 | 16,548 | |
| 1986 ² | 6,970 | 148 | 788 | 1,487 | 1,467 | 734 | 627 | 521 | 1,198 | 16,649 | |
| 1987 ² | 7,283 | 167 | 874 | 1,398 | 1,549 | 734 | 732 | 569 | 1,260 | 16,569 | |
| 1988 | 7,619 | 168 | 792 | 1,565 | 1,682 | 736 | 835 | 579 | 1,262 | 17,306 | |
| 1989 | 8,136 | 180 | 796 | 1,649 | 1,822 | 907 | 855 | 639 | 1,288 | 18,128 | |
| 1990 | 8,698 | 199 | 896 | 1,781 | 1,956 | 908 | 848 | 692 | 1,418 | 19,402 | |
| 1991 | 9,683 | 254 | 985 | 2,019 | 2,165 | 1,042 | 942 | 742 | 1,534 | 21,416 | |
| 1992 | 10,664 | 263 | 1,097 | 2,328 | 2,426 | 1,175 | 1,086 | 807 | 1,482 | 23,066 | |
| 1993 | 11,199 | 291 | 1,166 | 2,524 | 2,444 | 1,173 | 1,185 | 802 | 1,614 | 25,723 | |
| 1994 | 11,577 | 278 | 1,193 | 2,786 | 2,391 | 1,298 | 1,217 | 840 | 1,574 | 28,328 | |
| 1995 | 11,496 | 276 | 1,223 | 2,817 | 2,440 | 1,151 | 1,135 | 816 | 1,638 | 30,528 | |
| 1996 | 11,826 | 283 | 1,315 | 2,854 | 2,548 | 1,091 | 1,190 | 815 | 1,730 | 31,909 | |
| 1997 | 12,505 | 303 | 1,359 | 2,906 | 2,830 | 1,098 | 1,289 | 855 | 1,865 | 33,149 | |

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 7. Full-time graduate students with U.S. citizenship in science, engineering, and health fields
in all institutions, by field: 1975-97**

Page 1 of 1

| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1979 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1980 | 166,192 | 141,456 | 17,186 | 9,484 | 6,647 | 4,521 | 7,872 | 33,171 | 25,461 | 37,114 | |
| 1981 | 165,662 | 139,618 | 17,049 | 9,439 | 6,511 | 4,887 | 7,873 | 32,490 | 25,566 | 35,803 | |
| 1982 | 166,743 | 138,270 | 17,584 | 9,693 | 6,926 | 5,981 | 7,676 | 31,720 | 24,588 | 34,102 | |
| 1983 | 169,927 | 138,772 | 18,009 | 10,299 | 6,714 | 6,677 | 7,446 | 31,283 | 25,468 | 32,876 | |
| 1984 ² | 169,916 | 137,969 | 18,292 | 10,164 | 6,772 | 6,982 | 7,420 | 31,374 | 24,924 | 32,041 | |
| 1985 ² | 168,281 | 136,457 | 18,186 | 9,669 | 6,995 | 8,327 | 6,854 | 30,715 | 24,179 | 31,532 | |
| 1986 ² | 170,447 | 137,217 | 18,264 | 9,382 | 7,243 | 8,912 | 6,743 | 30,663 | 25,085 | 30,925 | |
| 1987 ² | 171,169 | 137,246 | 18,384 | 8,496 | 7,549 | 8,863 | 6,434 | 30,255 | 26,044 | 31,221 | |
| 1988 | 170,236 | 136,725 | 18,130 | 8,040 | 7,738 | 8,415 | 6,443 | 30,244 | 26,802 | 30,913 | |
| 1989 | 173,420 | 139,351 | 18,107 | 7,717 | 7,697 | 8,616 | 6,393 | 30,367 | 28,021 | 32,433 | |
| 1990 | 177,804 | 143,340 | 17,836 | 7,813 | 7,961 | 8,742 | 6,215 | 30,286 | 29,133 | 35,354 | |
| 1991 | 185,487 | 148,396 | 18,267 | 7,802 | 8,380 | 8,426 | 6,405 | 31,102 | 30,634 | 37,380 | |
| 1992 | 197,473 | 157,575 | 18,759 | 8,309 | 8,939 | 8,852 | 6,590 | 32,558 | 32,548 | 41,020 | |
| 1993 | 204,484 | 163,261 | 19,231 | 8,680 | 9,056 | 8,985 | 6,661 | 34,520 | 33,196 | 42,932 | |
| 1994 | 206,851 | 165,684 | 19,130 | 8,608 | 8,876 | 8,731 | 6,680 | 36,228 | 33,430 | 44,001 | |
| 1995 | 204,163 | 165,564 | 18,410 | 8,689 | 8,291 | 8,610 | 6,866 | 37,196 | 33,574 | 43,928 | |
| 1996 | 200,783 | 164,295 | 17,639 | 8,430 | 7,885 | 8,374 | 6,725 | 37,229 | 33,845 | 44,168 | |
| 1997 | 196,041 | 161,197 | 16,796 | 8,328 | 7,277 | 8,649 | 6,741 | 36,764 | 33,855 | 42,787 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1979 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1980 | 24,736 | 759 | 2,500 | 4,670 | 5,666 | 2,297 | 3,211 | 1,147 | 4,486 | 21,950 | |
| 1981 | 26,044 | 882 | 2,787 | 5,162 | 5,665 | 2,029 | 3,363 | 1,342 | 4,814 | 21,938 | |
| 1982 | 28,473 | 945 | 3,267 | 5,428 | 6,421 | 2,190 | 3,767 | 1,297 | 5,158 | 20,586 | |
| 1983 | 31,155 | 1,088 | 3,630 | 5,544 | 7,398 | 1,933 | 4,327 | 1,530 | 5,705 | 20,201 | |
| 1984 ² | 31,947 | 1,115 | 3,603 | 5,687 | 7,890 | 1,934 | 4,591 | 1,663 | 5,464 | 20,561 | |
| 1985 ² | 31,824 | 1,258 | 3,337 | 5,282 | 8,137 | 1,874 | 4,858 | 1,805 | 5,273 | 20,762 | |
| 1986 ² | 33,230 | 1,343 | 3,412 | 5,303 | 8,572 | 2,053 | 5,218 | 1,854 | 5,475 | 20,665 | |
| 1987 ² | 33,923 | 1,559 | 3,353 | 5,090 | 9,002 | 2,145 | 5,559 | 1,829 | 5,386 | 21,103 | |
| 1988 | 33,511 | 1,502 | 2,957 | 5,208 | 9,295 | 2,227 | 5,299 | 1,805 | 5,218 | 21,485 | |
| 1989 | 34,069 | 1,757 | 2,668 | 5,097 | 9,723 | 2,426 | 5,632 | 1,890 | 4,876 | 22,527 | |
| 1990 | 34,464 | 1,870 | 2,668 | 5,375 | 9,652 | 2,374 | 5,781 | 1,985 | 4,759 | 23,875 | |
| 1991 | 37,091 | 2,201 | 2,798 | 6,140 | 9,976 | 2,760 | 6,120 | 2,067 | 5,029 | 26,105 | |
| 1992 | 39,898 | 2,246 | 2,948 | 7,003 | 10,577 | 3,076 | 6,803 | 2,247 | 4,998 | 28,406 | |
| 1993 | 41,223 | 2,178 | 3,107 | 7,440 | 10,428 | 3,209 | 7,228 | 2,264 | 5,369 | 31,832 | |
| 1994 | 41,167 | 1,862 | 3,370 | 7,848 | 10,467 | 3,180 | 7,090 | 2,335 | 5,015 | 35,448 | |
| 1995 | 38,599 | 1,611 | 3,304 | 7,652 | 9,382 | 2,863 | 6,548 | 2,158 | 5,081 | 38,268 | |
| 1996 | 36,488 | 1,417 | 3,368 | 7,509 | 8,714 | 2,512 | 6,024 | 1,961 | 4,983 | 40,289 | |
| 1997 | 34,844 | 1,327 | 3,263 | 7,007 | 8,521 | 2,394 | 5,591 | 1,894 | 4,847 | 42,240 | |

¹ Distribution by citizenship data were not requested before 1980.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 8. Full-time graduate students without U.S. citizenship in science, engineering, and health fields
in all institutions, by field: 1975-97**

Page 1 of 1

| Year | Total, science and engi- neering | Sciences | | | | | | | | | Health fields |
|----------------------------|---|-------------------------|------------------------|--|-------------------------------|---------------------------|--|------------------------|------------|--------------------|------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, & ocean sciences | Math- ematical sciences | Computer sciences | Agricul- tural sciences | Biological sciences | Psychology | Social sciences | |
| 1975 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1979 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1980 | 48,273 | 30,382 | 5,731 | 1,387 | 3,254 | 2,066 | 2,296 | 4,519 | 1,210 | 9,919 | |
| 1981 | 52,341 | 32,660 | 6,258 | 1,495 | 3,641 | 2,558 | 2,439 | 4,787 | 1,004 | 10,478 | |
| 1982 | 55,178 | 33,896 | 6,454 | 1,626 | 3,887 | 3,190 | 2,460 | 4,968 | 1,079 | 10,232 | |
| 1983 | 59,529 | 36,776 | 7,195 | 1,669 | 4,241 | 3,923 | 2,530 | 5,457 | 1,093 | 10,668 | |
| 1984 ² | 61,099 | 37,879 | 7,560 | 1,570 | 4,537 | 4,454 | 2,488 | 5,740 | 1,045 | 10,485 | |
| 1985 ² | 65,711 | 41,639 | 8,483 | 1,665 | 4,821 | 5,534 | 2,396 | 6,286 | 1,156 | 11,298 | |
| 1986 ² | 72,379 | 45,443 | 9,498 | 1,867 | 5,145 | 6,108 | 2,598 | 7,146 | 1,170 | 11,911 | |
| 1987 ² | 76,036 | 48,027 | 10,028 | 1,939 | 5,494 | 6,473 | 2,660 | 7,980 | 1,212 | 12,241 | |
| 1988 | 80,421 | 50,925 | 10,444 | 2,152 | 5,774 | 6,718 | 2,679 | 8,965 | 1,316 | 12,877 | |
| 1989 | 83,486 | 53,180 | 11,100 | 2,304 | 5,984 | 6,990 | 2,677 | 9,981 | 1,327 | 12,817 | |
| 1990 | 87,595 | 56,082 | 11,649 | 2,431 | 5,904 | 7,947 | 2,885 | 10,659 | 1,485 | 13,122 | |
| 1991 | 91,687 | 57,744 | 11,850 | 2,571 | 5,876 | 8,090 | 2,884 | 11,598 | 1,624 | 13,251 | |
| 1992 | 93,037 | 58,509 | 11,914 | 2,677 | 5,740 | 8,634 | 2,862 | 11,831 | 1,614 | 13,237 | |
| 1993 | 89,546 | 56,972 | 11,380 | 2,687 | 5,474 | 8,389 | 2,807 | 11,961 | 1,586 | 12,688 | |
| 1994 | 86,197 | 55,798 | 10,913 | 2,862 | 5,350 | 7,943 | 2,812 | 11,789 | 1,858 | 12,271 | |
| 1995 | 83,090 | 53,915 | 10,492 | 2,586 | 5,119 | 7,880 | 2,754 | 11,134 | 1,648 | 12,302 | |
| 1996 | 83,411 | 54,048 | 10,317 | 2,396 | 5,081 | 8,799 | 2,573 | 10,515 | 1,623 | 12,744 | |
| 1997 | 84,571 | 53,821 | 10,096 | 2,222 | 4,876 | 9,671 | 2,369 | 10,234 | 1,667 | 12,686 | |
| Engineering | | | | | | | | | | | |
| Engi- neering, total | Aerospace engineering | Chemical engineering | Civil engi- neering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallur- gical & materials engineering | Other engi- neering | | | |
| 1975 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1976 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1977 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1978 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1979 ¹ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1980 | 17,891 | 568 | 1,990 | 3,288 | 4,297 | 1,439 | 2,630 | 1,107 | 2,572 | 2,033 | |
| 1981 | 19,681 | 601 | 2,202 | 3,637 | 4,785 | 1,574 | 3,059 | 1,112 | 2,711 | 2,135 | |
| 1982 | 21,282 | 577 | 2,341 | 3,953 | 5,112 | 1,617 | 3,500 | 1,181 | 3,001 | 2,289 | |
| 1983 | 22,753 | 752 | 2,239 | 4,260 | 5,867 | 1,355 | 4,003 | 1,174 | 3,103 | 2,398 | |
| 1984 ² | 23,220 | 739 | 2,131 | 4,399 | 6,035 | 1,459 | 4,107 | 1,209 | 3,141 | 2,346 | |
| 1985 ² | 24,072 | 736 | 2,209 | 4,467 | 6,662 | 1,582 | 4,017 | 1,288 | 3,111 | 2,533 | |
| 1986 ² | 26,936 | 811 | 2,182 | 4,668 | 7,718 | 1,754 | 4,571 | 1,516 | 3,716 | 2,691 | |
| 1987 ² | 28,009 | 813 | 2,321 | 4,538 | 8,099 | 2,011 | 4,671 | 1,607 | 3,949 | 2,758 | |
| 1988 | 29,496 | 1,031 | 2,402 | 4,738 | 8,411 | 2,068 | 5,117 | 1,661 | 4,068 | 3,052 | |
| 1989 | 30,306 | 1,015 | 2,614 | 4,867 | 8,743 | 2,232 | 4,860 | 1,830 | 4,145 | 3,286 | |
| 1990 | 31,513 | 1,140 | 2,775 | 4,753 | 9,023 | 2,396 | 5,086 | 1,945 | 4,395 | 3,556 | |
| 1991 | 33,943 | 1,124 | 2,990 | 5,188 | 9,928 | 2,838 | 5,567 | 1,991 | 4,317 | 3,761 | |
| 1992 | 34,528 | 1,060 | 2,998 | 5,451 | 10,419 | 3,005 | 5,580 | 2,027 | 3,988 | 3,693 | |
| 1993 | 32,574 | 1,084 | 2,934 | 5,018 | 9,942 | 2,693 | 5,167 | 1,985 | 3,751 | 3,817 | |
| 1994 | 30,399 | 1,138 | 2,735 | 4,793 | 8,945 | 2,730 | 4,785 | 1,773 | 3,500 | 3,633 | |
| 1995 | 29,175 | 1,082 | 2,653 | 4,596 | 8,805 | 2,479 | 4,580 | 1,722 | 3,258 | 3,627 | |
| 1996 | 29,363 | 1,159 | 2,541 | 4,282 | 9,275 | 2,616 | 4,666 | 1,732 | 3,092 | 3,970 | |
| 1997 | 30,750 | 1,202 | 2,521 | 4,252 | 10,405 | 2,677 | 4,841 | 1,767 | 3,085 | 3,990 | |

¹ Distribution by citizenship data were not requested before 1980.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 9. Graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 452,178 | 471,262 | 493,632 | 504,449 | 504,542 | 499,732 | 494,219 | 487,104 |
| Total, science and engineering fields | 397,135 | 412,697 | 430,644 | 435,886 | 431,251 | 422,555 | 415,363 | 407,644 |
| Sciences, total | 289,510 | 299,121 | 312,609 | 319,028 | 318,228 | 315,356 | 312,140 | 306,636 |
| Physical sciences, total | 34,075 | 34,710 | 35,348 | 35,318 | 34,449 | 33,417 | 32,355 | 31,108 |
| Astronomy | 810 | 829 | 869 | 880 | 973 | 912 | 874 | 778 |
| Chemistry | 19,118 | 19,407 | 19,929 | 20,131 | 19,797 | 19,594 | 19,358 | 18,794 |
| Physics | 13,813 | 14,081 | 14,122 | 13,841 | 13,162 | 12,425 | 11,728 | 11,147 |
| Physical sciences, n.e.c. | 334 | 393 | 428 | 466 | 517 | 486 | 395 | 389 |
| Earth, atmos., & ocean sci., total | 13,984 | 14,480 | 15,347 | 15,805 | 16,042 | 15,805 | 15,280 | 14,644 |
| Atmospheric sciences | 929 | 968 | 1,089 | 1,112 | 1,109 | 1,072 | 1,086 | 1,092 |
| Geosciences | 7,692 | 7,567 | 7,744 | 7,785 | 7,741 | 7,608 | 7,323 | 6,997 |
| Oceanography | 2,333 | 2,386 | 2,530 | 2,611 | 2,853 | 2,703 | 2,598 | 2,458 |
| Earth, atmos., & ocean sci., n.e.c. | 3,030 | 3,559 | 3,984 | 4,297 | 4,339 | 4,422 | 4,273 | 4,097 |
| Mathematical sciences, total | 19,774 | 19,952 | 20,355 | 20,000 | 19,579 | 18,509 | 18,015 | 16,759 |
| Mathematics & applied mathematics | 17,096 | 17,206 | 17,404 | 16,945 | 16,463 | 15,400 | 14,970 | 14,078 |
| Statistics | 2,678 | 2,746 | 2,951 | 3,055 | 3,116 | 3,109 | 3,045 | 2,681 |
| Computer sciences | 34,257 | 34,610 | 36,293 | 36,189 | 34,128 | 33,432 | 34,592 | 36,010 |
| Agricultural sciences | 11,316 | 11,506 | 11,827 | 11,914 | 12,199 | 12,367 | 11,914 | 11,810 |
| Biological sciences, total | 49,989 | 51,778 | 54,177 | 56,452 | 58,143 | 58,736 | 58,128 | 57,135 |
| Anatomy | 1,000 | 1,051 | 1,030 | 1,027 | 1,079 | 1,056 | 1,111 | 1,094 |
| Biochemistry | 5,039 | 5,201 | 5,376 | 5,513 | 5,632 | 5,550 | 5,265 | 5,093 |
| Biology | 13,027 | 13,292 | 13,874 | 14,327 | 14,220 | 14,284 | 14,635 | 14,643 |
| Biometry/epidemiology | 1,871 | 2,032 | 2,365 | 2,658 | 2,710 | 2,812 | 3,001 | 2,900 |
| Biophysics | 642 | 697 | 751 | 780 | 794 | 845 | 833 | 748 |
| Botany | 2,733 | 2,694 | 2,689 | 2,714 | 2,748 | 2,609 | 2,504 | 2,402 |
| Cell biology | 2,555 | 2,809 | 3,093 | 3,374 | 3,768 | 3,890 | 3,896 | 3,981 |
| Ecology | 1,136 | 1,180 | 1,301 | 1,410 | 1,566 | 1,680 | 1,615 | 1,659 |
| Entomology/parasitology | 1,173 | 1,171 | 1,193 | 1,247 | 1,263 | 1,241 | 1,234 | 1,161 |
| Genetics | 1,408 | 1,520 | 1,639 | 1,785 | 1,699 | 1,700 | 1,729 | 1,760 |
| Microbio., immunology, & virology | 4,873 | 4,928 | 4,972 | 5,068 | 5,141 | 5,072 | 4,963 | 4,854 |
| Nutrition | 4,172 | 4,164 | 4,159 | 4,388 | 4,747 | 5,016 | 4,859 | 4,550 |
| Pathology | 1,354 | 1,449 | 1,456 | 1,575 | 1,707 | 1,670 | 1,656 | 1,674 |
| Pharmacology | 2,353 | 2,432 | 2,529 | 2,645 | 2,830 | 2,700 | 2,652 | 2,582 |
| Physiology | 2,236 | 2,332 | 2,317 | 2,372 | 2,378 | 2,540 | 2,377 | 2,298 |
| Zoology | 2,104 | 2,191 | 2,139 | 2,120 | 2,092 | 2,068 | 1,911 | 1,730 |
| Biosciences, n.e.c. | 2,313 | 2,635 | 3,294 | 3,449 | 3,769 | 4,003 | 3,887 | 4,006 |
| Psychology, total | 48,167 | 51,343 | 53,484 | 54,557 | 54,554 | 53,641 | 53,209 | 53,142 |
| Psychology, general | 20,108 | 19,555 | 18,802 | 18,887 | 18,297 | 17,666 | 16,894 | 17,375 |
| Clinical psychology | 9,916 | 10,834 | 12,090 | 12,526 | 12,684 | 12,519 | 12,787 | 12,893 |
| Psychology, n.e.c. | 18,143 | 20,954 | 22,592 | 23,144 | 23,573 | 23,456 | 23,528 | 22,874 |
| Social sciences, total | 77,948 | 80,742 | 85,778 | 88,793 | 89,134 | 89,449 | 88,647 | 86,028 |
| Agricultural economics | 2,273 | 2,364 | 2,522 | 2,415 | 2,289 | 2,338 | 2,117 | 2,043 |
| Anthropology (cultural & social) | 6,479 | 6,731 | 7,123 | 7,361 | 7,665 | 7,693 | 7,773 | 7,558 |
| Economics (except agricultural) | 12,326 | 12,707 | 13,252 | 13,214 | 12,913 | 12,673 | 12,080 | 11,069 |
| Geography | 3,530 | 3,760 | 4,102 | 4,378 | 4,502 | 4,371 | 4,331 | 4,287 |
| History and philosophy of science | 331 | 337 | 360 | 369 | 387 | 401 | 409 | 443 |
| Linguistics | 3,404 | 3,425 | 3,277 | 3,321 | 3,279 | 3,194 | 3,156 | 3,008 |
| Political science | 30,582 | 31,707 | 33,797 | 35,076 | 34,317 | 34,298 | 33,252 | 32,039 |
| Sociology | 7,801 | 8,393 | 9,011 | 9,425 | 9,498 | 9,564 | 9,425 | 9,423 |
| Sociology/anthropology | 1,164 | 899 | 979 | 935 | 987 | 941 | 923 | 948 |
| Social sciences, n.e.c. | 10,058 | 10,419 | 11,355 | 12,299 | 13,297 | 13,976 | 15,181 | 15,210 |
| Engineering, total | 107,625 | 113,576 | 118,035 | 116,858 | 113,023 | 107,199 | 103,223 | 101,008 |
| Aerospace engineering | 3,934 | 4,120 | 4,036 | 3,940 | 3,715 | 3,343 | 3,208 | 3,083 |
| Agricultural engineering | 946 | 983 | 1,008 | 1,018 | 1,061 | 1,037 | 1,012 | 941 |
| Biomedical engineering | 2,136 | 2,239 | 2,537 | 2,675 | 2,750 | 2,732 | 2,732 | 2,847 |
| Chemical engineering | 6,735 | 7,127 | 7,397 | 7,516 | 7,608 | 7,424 | 7,373 | 7,247 |
| Civil engineering | 15,542 | 17,398 | 19,572 | 19,583 | 19,925 | 19,218 | 18,528 | 17,033 |
| Electrical engineering | 33,722 | 35,182 | 36,460 | 35,314 | 33,050 | 30,747 | 29,736 | 30,617 |
| Engineering science | 2,020 | 2,154 | 2,218 | 2,180 | 2,089 | 1,955 | 1,751 | 1,647 |
| Industrial/manufacturing eng. | 11,248 | 12,676 | 13,525 | 13,596 | 13,661 | 13,143 | 12,399 | 11,725 |
| Mechanical engineering | 16,879 | 17,730 | 18,637 | 18,477 | 17,761 | 16,363 | 15,509 | 15,044 |
| Metallurgical/materials eng. | 4,941 | 5,160 | 5,512 | 5,363 | 5,191 | 4,920 | 4,713 | 4,649 |
| Mining engineering | 437 | 489 | 437 | 427 | 424 | 373 | 371 | 348 |
| Nuclear engineering | 1,278 | 1,282 | 1,286 | 1,306 | 1,246 | 1,154 | 980 | 868 |
| Petroleum engineering | 670 | 705 | 737 | 725 | 624 | 610 | 562 | 565 |
| Engineering, n.e.c. | 7,137 | 6,331 | 4,673 | 4,738 | 3,918 | 4,180 | 4,349 | 4,394 |

See explanatory information, if any, and SOURCE at end of table.

**Table 9. Graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 2 of 2

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, health fields | 55,043 | 58,565 | 62,988 | 68,563 | 73,291 | 77,177 | 78,856 | 79,460 |
| Medical fields, total | 10,950 | 11,707 | 12,594 | 14,184 | 15,027 | 15,521 | 15,320 | 15,234 |
| Anesthesiology | 391 | 529 | 708 | 719 | 729 | 749 | 754 | 840 |
| Cardiology | 0 | 2 | 8 | 11 | 14 | 19 | 18 | 48 |
| Oncology/cancer research | 113 | 156 | 197 | 209 | 208 | 189 | 185 | 198 |
| Endocrinology | 74 | 66 | 71 | 63 | 63 | 53 | 46 | 43 |
| Gastroenterology | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| Hematology | 4 | 4 | 5 | 3 | 2 | 1 | 3 | 3 |
| Neurology | 844 | 1,003 | 1,149 | 1,311 | 1,455 | 1,554 | 1,632 | 1,696 |
| Obstetrics and gynecology | 5 | 10 | 3 | 3 | 4 | 6 | 4 | 18 |
| Ophthalmology | 37 | 32 | 27 | 19 | 32 | 30 | 33 | 33 |
| Otorhinolaryngology | 4 | 3 | 0 | 1 | 2 | 0 | 0 | 2 |
| Pediatrics | 140 | 153 | 154 | 196 | 261 | 238 | 275 | 434 |
| Preventive medicine/community health | 8,167 | 8,423 | 8,737 | 9,976 | 10,459 | 10,858 | 10,543 | 10,000 |
| Psychiatry | 122 | 104 | 147 | 172 | 225 | 249 | 218 | 249 |
| Pulmonary disease | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Radiology | 196 | 233 | 252 | 287 | 320 | 314 | 285 | 267 |
| Surgery | 65 | 69 | 76 | 82 | 119 | 174 | 167 | 244 |
| Clinical medicine, n.e.c. | 787 | 920 | 1,060 | 1,131 | 1,134 | 1,087 | 1,157 | 1,156 |
| Other health fields, total | 44,093 | 46,858 | 50,394 | 54,379 | 58,264 | 61,656 | 63,536 | 64,226 |
| Dental sciences | 956 | 1,016 | 1,121 | 1,135 | 1,199 | 1,251 | 1,291 | 1,434 |
| Nursing | 21,194 | 22,012 | 23,213 | 24,781 | 26,997 | 28,405 | 27,388 | 26,679 |
| Pharmaceutical sciences | 2,889 | 2,968 | 2,804 | 2,871 | 2,901 | 2,948 | 2,975 | 3,051 |
| Speech pathology/audiology | 8,354 | 8,945 | 9,791 | 10,740 | 11,473 | 12,092 | 12,973 | 13,320 |
| Veterinary sciences | 900 | 894 | 942 | 877 | 875 | 929 | 946 | 1,175 |
| Health related, n.e.c. | 9,800 | 11,023 | 12,523 | 13,975 | 14,819 | 16,031 | 17,963 | 18,567 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 10. Male graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 1 of 1

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 275,678 | 284,898 | 294,234 | 294,502 | 288,373 | 279,406 | 271,738 | 264,421 |
| Total, science and engineering fields | 263,394 | 271,845 | 280,397 | 279,289 | 272,120 | 262,341 | 253,629 | 245,615 |
| Sciences, total | 170,441 | 173,984 | 179,595 | 180,123 | 177,146 | 173,156 | 168,658 | 163,322 |
| Physical sciences, total | 26,007 | 26,146 | 26,504 | 26,116 | 25,290 | 24,327 | 23,303 | 22,257 |
| Astronomy | 645 | 657 | 683 | 682 | 750 | 689 | 647 | 570 |
| Chemistry | 13,250 | 13,145 | 13,367 | 13,279 | 12,956 | 12,759 | 12,511 | 12,066 |
| Physics | 11,900 | 12,101 | 12,179 | 11,865 | 11,254 | 10,590 | 9,919 | 9,403 |
| Physical sciences, n.e.c. | 212 | 243 | 275 | 290 | 330 | 289 | 226 | 218 |
| Earth, atmos., & ocean sci., total | 9,865 | 10,025 | 10,489 | 10,745 | 10,689 | 10,336 | 9,786 | 9,187 |
| Atmospheric sciences | 744 | 778 | 848 | 887 | 867 | 835 | 852 | 829 |
| Geosciences | 5,770 | 5,559 | 5,667 | 5,675 | 5,506 | 5,310 | 4,991 | 4,686 |
| Oceanography | 1,552 | 1,540 | 1,571 | 1,607 | 1,746 | 1,609 | 1,539 | 1,415 |
| Earth, atmos., & ocean sci., n.e.c. | 1,799 | 2,148 | 2,403 | 2,576 | 2,570 | 2,582 | 2,404 | 2,257 |
| Mathematical sciences | 13,575 | 13,654 | 13,806 | 13,362 | 13,044 | 12,248 | 11,794 | 10,875 |
| Computer sciences | 26,058 | 26,340 | 27,838 | 27,767 | 26,043 | 25,306 | 25,802 | 26,133 |
| Agricultural sciences | 7,981 | 7,939 | 8,059 | 7,826 | 7,911 | 7,935 | 7,502 | 7,277 |
| Biological sciences, total | 26,947 | 27,643 | 28,702 | 29,399 | 29,988 | 29,890 | 29,360 | 28,513 |
| Anatomy | 542 | 550 | 537 | 534 | 554 | 549 | 586 | 580 |
| Biochemistry | 2,974 | 3,070 | 3,158 | 3,182 | 3,250 | 3,143 | 2,982 | 2,922 |
| Biology | 7,078 | 7,080 | 7,295 | 7,520 | 7,476 | 7,395 | 7,511 | 7,370 |
| Biometry/epidemiology | 874 | 920 | 1,037 | 1,132 | 1,124 | 1,139 | 1,227 | 1,119 |
| Biophysics | 478 | 515 | 549 | 554 | 576 | 604 | 589 | 532 |
| Botany | 1,661 | 1,627 | 1,635 | 1,620 | 1,584 | 1,465 | 1,394 | 1,283 |
| Cell biology | 1,435 | 1,528 | 1,687 | 1,802 | 2,038 | 2,097 | 2,071 | 2,091 |
| Ecology | 667 | 662 | 712 | 746 | 821 | 906 | 847 | 867 |
| Entomology/parasitology | 815 | 830 | 839 | 847 | 846 | 827 | 810 | 751 |
| Genetics | 681 | 761 | 797 | 853 | 787 | 818 | 828 | 801 |
| Microbio., immunology, & virology | 2,553 | 2,576 | 2,606 | 2,600 | 2,632 | 2,591 | 2,506 | 2,431 |
| Nutrition | 1,231 | 1,244 | 1,208 | 1,244 | 1,267 | 1,287 | 1,231 | 1,138 |
| Pathology | 776 | 825 | 809 | 834 | 925 | 890 | 847 | 842 |
| Pharmacology | 1,329 | 1,302 | 1,348 | 1,404 | 1,484 | 1,395 | 1,366 | 1,362 |
| Physiology | 1,303 | 1,366 | 1,366 | 1,389 | 1,392 | 1,482 | 1,396 | 1,364 |
| Zoology | 1,269 | 1,307 | 1,311 | 1,260 | 1,216 | 1,202 | 1,091 | 974 |
| Biosciences, n.e.c. | 1,281 | 1,480 | 1,808 | 1,878 | 2,016 | 2,100 | 2,078 | 2,086 |
| Psychology | 15,822 | 16,556 | 16,650 | 16,567 | 16,416 | 15,877 | 15,403 | 15,499 |
| Social sciences, total | 44,186 | 45,681 | 47,547 | 48,341 | 47,765 | 47,237 | 45,708 | 43,581 |
| Agricultural economics | 1,674 | 1,728 | 1,810 | 1,665 | 1,541 | 1,555 | 1,407 | 1,355 |
| Anthropology (cultural & social) | 2,688 | 2,778 | 2,876 | 2,969 | 3,072 | 3,140 | 3,087 | 3,058 |
| Economics (except agricultural) | 8,952 | 9,148 | 9,450 | 9,358 | 9,120 | 8,797 | 8,297 | 7,563 |
| Geography | 2,326 | 2,442 | 2,671 | 2,796 | 2,904 | 2,786 | 2,770 | 2,662 |
| Linguistics | 1,398 | 1,512 | 1,281 | 1,301 | 1,213 | 1,194 | 1,133 | 1,034 |
| Political science | 17,425 | 17,971 | 18,826 | 19,320 | 18,733 | 18,348 | 17,620 | 16,655 |
| Sociology | 3,522 | 3,781 | 3,861 | 3,857 | 3,758 | 3,781 | 3,640 | 3,592 |
| Sociology/anthropology | 483 | 410 | 445 | 423 | 396 | 387 | 382 | 377 |
| Social sciences, other | 5,718 | 5,911 | 6,327 | 6,652 | 7,028 | 7,249 | 7,372 | 7,285 |
| Engineering, total | 92,953 | 97,861 | 100,802 | 99,166 | 94,974 | 89,185 | 84,971 | 82,293 |
| Aerospace engineering | 3,645 | 3,793 | 3,688 | 3,583 | 3,357 | 2,992 | 2,856 | 2,712 |
| Agricultural engineering | 845 | 858 | 864 | 867 | 861 | 835 | 802 | 723 |
| Biomedical engineering | 1,589 | 1,651 | 1,920 | 1,977 | 2,053 | 2,006 | 1,999 | 2,021 |
| Chemical engineering | 5,589 | 5,870 | 6,003 | 6,017 | 6,082 | 5,863 | 5,731 | 5,538 |
| Civil engineering | 12,853 | 14,296 | 15,918 | 15,725 | 15,714 | 14,986 | 14,228 | 12,874 |
| Electrical engineering | 30,007 | 31,311 | 32,167 | 30,992 | 28,946 | 26,652 | 25,607 | 26,158 |
| Engineering science | 1,721 | 1,866 | 1,913 | 1,876 | 1,783 | 1,658 | 1,456 | 1,369 |
| Industrial/manufacturing eng. | 9,111 | 10,321 | 10,870 | 11,003 | 10,866 | 10,388 | 9,685 | 9,115 |
| Mechanical engineering | 15,437 | 16,219 | 16,939 | 16,703 | 15,938 | 14,686 | 13,873 | 13,265 |
| Metallurgical/materials eng. | 4,048 | 4,173 | 4,443 | 4,336 | 4,122 | 3,861 | 3,653 | 3,555 |
| Nuclear engineering | 1,123 | 1,105 | 1,100 | 1,121 | 1,093 | 1,009 | 827 | 725 |
| Engineering, other | 6,985 | 6,398 | 4,977 | 4,966 | 4,159 | 4,249 | 4,254 | 4,238 |
| Total, health fields | 12,284 | 13,053 | 13,837 | 15,213 | 16,253 | 17,065 | 18,109 | 18,806 |
| Clinical fields | 1,017 | 1,150 | 1,289 | 1,353 | 1,373 | 1,348 | 1,407 | 1,527 |
| Dental sciences | 677 | 717 | 772 | 786 | 819 | 819 | 831 | 893 |
| Nursing | 1,017 | 1,128 | 1,168 | 1,285 | 1,506 | 1,661 | 1,765 | 2,032 |
| Pharmaceutical sciences | 1,748 | 1,729 | 1,621 | 1,592 | 1,591 | 1,602 | 1,564 | 1,526 |
| Preventive medicine/community health | 3,174 | 3,265 | 3,334 | 3,892 | 4,108 | 4,198 | 4,249 | 4,007 |
| Speech pathology/audiology | 736 | 708 | 777 | 856 | 935 | 983 | 1,042 | 1,075 |
| Veterinary sciences | 512 | 528 | 536 | 470 | 467 | 490 | 505 | 586 |
| Other health fields | 3,403 | 3,828 | 4,340 | 4,979 | 5,454 | 5,964 | 6,746 | 7,160 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 11. Female graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 1 of 1

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 176,500 | 186,364 | 199,398 | 209,947 | 216,169 | 220,326 | 222,481 | 222,683 |
| Total, science and engineering fields | 133,741 | 140,852 | 150,247 | 156,597 | 159,131 | 160,214 | 161,734 | 162,029 |
| Sciences, total | 119,069 | 125,137 | 133,014 | 138,905 | 141,082 | 142,200 | 143,482 | 143,314 |
| Physical sciences, total | 8,068 | 8,564 | 8,844 | 9,202 | 9,159 | 9,090 | 9,052 | 8,851 |
| Astronomy | 165 | 172 | 186 | 198 | 223 | 223 | 227 | 208 |
| Chemistry | 5,868 | 6,262 | 6,562 | 6,852 | 6,841 | 6,835 | 6,847 | 6,728 |
| Physics | 1,913 | 1,980 | 1,943 | 1,976 | 1,908 | 1,835 | 1,809 | 1,744 |
| Physical sciences, n.e.c. | 122 | 150 | 153 | 176 | 187 | 197 | 169 | 171 |
| Earth, atmos., & ocean sci., total | 4,119 | 4,455 | 4,858 | 5,060 | 5,353 | 5,469 | 5,494 | 5,457 |
| Atmospheric sciences | 185 | 190 | 241 | 225 | 242 | 237 | 234 | 263 |
| Geosciences | 1,922 | 2,008 | 2,077 | 2,110 | 2,235 | 2,298 | 2,332 | 2,311 |
| Oceanography | 781 | 846 | 959 | 1,004 | 1,107 | 1,094 | 1,059 | 1,043 |
| Earth, atmos., & ocean sci., n.e.c. | 1,231 | 1,411 | 1,581 | 1,721 | 1,769 | 1,840 | 1,869 | 1,840 |
| Mathematical sciences | 6,199 | 6,298 | 6,549 | 6,638 | 6,535 | 6,261 | 6,221 | 5,884 |
| Computer sciences | 8,199 | 8,270 | 8,455 | 8,422 | 8,085 | 8,126 | 8,790 | 9,877 |
| Agricultural sciences | 3,335 | 3,567 | 3,768 | 4,088 | 4,288 | 4,432 | 4,412 | 4,533 |
| Biological sciences, total | 23,042 | 24,135 | 25,475 | 27,053 | 28,155 | 28,846 | 28,768 | 28,622 |
| Anatomy | 458 | 501 | 493 | 493 | 525 | 507 | 525 | 514 |
| Biochemistry | 2,065 | 2,131 | 2,218 | 2,331 | 2,382 | 2,407 | 2,283 | 2,171 |
| Biology | 5,949 | 6,212 | 6,579 | 6,807 | 6,744 | 6,889 | 7,124 | 7,273 |
| Biometry/epidemiology | 997 | 1,112 | 1,328 | 1,526 | 1,586 | 1,673 | 1,774 | 1,781 |
| Biophysics | 164 | 182 | 202 | 226 | 218 | 241 | 244 | 216 |
| Botany | 1,072 | 1,067 | 1,054 | 1,094 | 1,164 | 1,144 | 1,110 | 1,119 |
| Cell biology | 1,120 | 1,281 | 1,406 | 1,572 | 1,730 | 1,793 | 1,825 | 1,890 |
| Ecology | 469 | 518 | 589 | 664 | 745 | 774 | 768 | 792 |
| Entomology/parasitology | 358 | 341 | 354 | 400 | 417 | 414 | 424 | 410 |
| Genetics | 727 | 759 | 842 | 932 | 912 | 882 | 901 | 959 |
| Microbio., immunology, & virology | 2,320 | 2,352 | 2,366 | 2,468 | 2,509 | 2,481 | 2,457 | 2,423 |
| Nutrition | 2,941 | 2,920 | 2,951 | 3,144 | 3,480 | 3,729 | 3,628 | 3,412 |
| Pathology | 578 | 624 | 647 | 741 | 782 | 780 | 809 | 832 |
| Pharmacology | 1,024 | 1,130 | 1,181 | 1,241 | 1,346 | 1,305 | 1,286 | 1,220 |
| Physiology | 933 | 966 | 951 | 983 | 986 | 1,058 | 981 | 934 |
| Zoology | 835 | 884 | 828 | 860 | 876 | 866 | 820 | 756 |
| Biosciences, n.e.c. | 1,032 | 1,155 | 1,486 | 1,571 | 1,753 | 1,903 | 1,809 | 1,920 |
| Psychology | 32,345 | 34,787 | 36,834 | 37,990 | 38,138 | 37,764 | 37,806 | 37,643 |
| Social sciences, total | 33,762 | 35,061 | 38,231 | 40,452 | 41,369 | 42,212 | 42,939 | 42,447 |
| Agricultural economics | 599 | 636 | 712 | 750 | 748 | 783 | 710 | 688 |
| Anthropology (cultural & social) | 3,791 | 3,953 | 4,247 | 4,392 | 4,593 | 4,553 | 4,686 | 4,500 |
| Economics (except agricultural) | 3,374 | 3,559 | 3,802 | 3,856 | 3,793 | 3,876 | 3,783 | 3,506 |
| Geography | 1,204 | 1,318 | 1,431 | 1,582 | 1,598 | 1,585 | 1,561 | 1,625 |
| Linguistics | 2,006 | 1,913 | 1,996 | 2,020 | 2,066 | 2,000 | 2,023 | 1,974 |
| Political science | 13,157 | 13,736 | 14,971 | 15,756 | 15,584 | 15,950 | 15,632 | 15,384 |
| Sociology | 4,279 | 4,612 | 5,150 | 5,568 | 5,740 | 5,783 | 5,785 | 5,831 |
| Sociology/anthropology | 681 | 489 | 534 | 512 | 591 | 554 | 541 | 571 |
| Social sciences, other | 4,671 | 4,845 | 5,388 | 6,016 | 6,656 | 7,128 | 8,218 | 8,368 |
| Engineering, total | 14,672 | 15,715 | 17,233 | 17,692 | 18,049 | 18,014 | 18,252 | 18,715 |
| Aerospace engineering | 289 | 327 | 348 | 357 | 358 | 351 | 352 | 371 |
| Agricultural engineering | 101 | 125 | 144 | 151 | 200 | 202 | 210 | 218 |
| Biomedical engineering | 547 | 588 | 617 | 698 | 697 | 726 | 733 | 826 |
| Chemical engineering | 1,146 | 1,257 | 1,394 | 1,499 | 1,526 | 1,561 | 1,642 | 1,709 |
| Civil engineering | 2,689 | 3,102 | 3,654 | 3,858 | 4,211 | 4,232 | 4,300 | 4,159 |
| Electrical engineering | 3,715 | 3,871 | 4,293 | 4,322 | 4,104 | 4,095 | 4,129 | 4,459 |
| Engineering science | 299 | 288 | 305 | 304 | 306 | 297 | 295 | 278 |
| Industrial/manufacturing eng. | 2,137 | 2,355 | 2,655 | 2,593 | 2,795 | 2,755 | 2,714 | 2,610 |
| Mechanical engineering | 1,442 | 1,511 | 1,698 | 1,774 | 1,823 | 1,677 | 1,636 | 1,779 |
| Metallurgical/materials eng. | 893 | 987 | 1,069 | 1,027 | 1,069 | 1,059 | 1,060 | 1,094 |
| Nuclear engineering | 155 | 177 | 186 | 185 | 153 | 145 | 153 | 143 |
| Engineering, other | 1,259 | 1,127 | 870 | 924 | 807 | 914 | 1,028 | 1,069 |
| Total, health fields | 42,759 | 45,512 | 49,151 | 53,350 | 57,038 | 60,112 | 60,747 | 60,654 |
| Clinical fields | 922 | 1,131 | 1,419 | 1,544 | 1,740 | 1,761 | 1,738 | 2,011 |
| Dental sciences | 279 | 299 | 349 | 349 | 380 | 432 | 460 | 541 |
| Nursing | 20,177 | 20,884 | 22,045 | 23,496 | 25,491 | 26,744 | 25,623 | 24,647 |
| Pharmaceutical sciences | 1,141 | 1,239 | 1,183 | 1,279 | 1,310 | 1,346 | 1,411 | 1,525 |
| Preventive medicine/community health | 4,993 | 5,158 | 5,403 | 6,084 | 6,351 | 6,660 | 6,294 | 5,993 |
| Speech pathology/audiology | 7,618 | 8,237 | 9,014 | 9,884 | 10,538 | 11,109 | 11,931 | 12,245 |
| Veterinary sciences | 388 | 366 | 406 | 407 | 408 | 439 | 441 | 589 |
| Other health fields | 7,241 | 8,198 | 9,332 | 10,307 | 10,820 | 11,621 | 12,849 | 13,103 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 12. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

Page 1 of 3

| Field, citizenship, and racial/ethnic background | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 452,178 | 471,262 | 493,632 | 504,449 | 504,542 | 499,732 | 494,219 | 487,104 |
| Total U.S. citizens | 345,108 | 358,073 | 379,704 | 394,115 | 397,984 | 396,838 | 391,228 | 383,412 |
| Black, non-Hispanic | 15,216 | 16,407 | 18,487 | 20,439 | 21,177 | 22,154 | 22,976 | 23,534 |
| American Indian/Alaskan Native | 1,270 | 1,365 | 1,515 | 1,606 | 1,725 | 1,857 | 1,907 | 1,968 |
| Asian/Pacific Islander | 18,801 | 20,059 | 23,966 | 26,849 | 29,616 | 29,361 | 29,943 | 30,399 |
| Hispanic | 12,014 | 13,053 | 14,625 | 16,052 | 15,967 | 17,264 | 17,834 | 18,107 |
| White, non-Hispanic | 281,558 | 288,813 | 302,169 | 309,257 | 311,987 | 304,438 | 297,159 | 286,410 |
| Other or unknown | 16,249 | 18,376 | 18,942 | 19,912 | 17,512 | 21,764 | 21,409 | 22,994 |
| Non-U.S. citizens | 107,070 | 113,189 | 113,928 | 110,334 | 106,558 | 102,894 | 102,991 | 103,692 |
| Total, science and engineering | 397,135 | 412,697 | 430,644 | 435,886 | 431,251 | 422,555 | 415,363 | 407,644 |
| Total U.S. citizens | 294,318 | 304,063 | 321,182 | 330,169 | 329,095 | 324,017 | 317,209 | 308,835 |
| Black, non-Hispanic | 12,774 | 13,691 | 15,445 | 17,118 | 17,611 | 18,283 | 19,071 | 19,363 |
| American Indian/Alaskan Native | 1,054 | 1,120 | 1,243 | 1,309 | 1,383 | 1,516 | 1,539 | 1,599 |
| Asian/Pacific Islander | 17,155 | 18,136 | 21,752 | 24,059 | 26,474 | 25,901 | 25,947 | 26,078 |
| Hispanic | 10,159 | 11,045 | 12,246 | 13,381 | 13,281 | 14,117 | 14,638 | 14,988 |
| White, non-Hispanic | 238,472 | 243,602 | 253,435 | 256,859 | 255,719 | 245,889 | 238,077 | 227,936 |
| Other or unknown | 14,704 | 16,469 | 17,061 | 17,443 | 14,627 | 18,311 | 17,937 | 18,871 |
| Non-U.S. citizens | 102,817 | 108,634 | 109,462 | 105,717 | 102,156 | 98,538 | 98,154 | 98,809 |
| Sciences, total | 289,510 | 299,121 | 312,609 | 319,028 | 318,228 | 315,356 | 312,140 | 306,636 |
| Total U.S. citizens | 224,892 | 231,830 | 244,587 | 252,578 | 253,056 | 252,285 | 249,015 | 244,249 |
| Black, non-Hispanic | 10,988 | 11,666 | 13,071 | 14,559 | 14,827 | 15,427 | 16,176 | 16,489 |
| American Indian/Alaskan Native | 902 | 935 | 1,066 | 1,098 | 1,141 | 1,285 | 1,305 | 1,361 |
| Asian/Pacific Islander | 10,468 | 11,020 | 13,260 | 15,072 | 16,697 | 16,893 | 17,510 | 17,924 |
| Hispanic | 8,273 | 8,921 | 9,783 | 10,687 | 10,420 | 11,309 | 11,703 | 12,177 |
| White, non-Hispanic | 185,265 | 188,818 | 196,039 | 199,419 | 199,699 | 193,933 | 188,965 | 181,919 |
| Other or unknown | 8,996 | 10,470 | 11,368 | 11,743 | 10,272 | 13,438 | 13,356 | 14,379 |
| Non-U.S. citizens | 64,618 | 67,291 | 68,022 | 66,450 | 65,172 | 63,071 | 63,125 | 62,387 |
| Physical sciences | 34,075 | 34,710 | 35,348 | 35,318 | 34,449 | 33,417 | 32,355 | 31,108 |
| Total U.S. citizens | 21,609 | 21,985 | 22,543 | 23,066 | 22,740 | 21,992 | 21,159 | 20,194 |
| Black, non-Hispanic | 654 | 699 | 807 | 843 | 856 | 897 | 986 | 952 |
| American Indian/Alaskan Native | 63 | 62 | 67 | 81 | 67 | 76 | 60 | 70 |
| Asian/Pacific Islander | 1,200 | 1,429 | 1,615 | 1,973 | 1,923 | 1,780 | 1,743 | 1,638 |
| Hispanic | 642 | 649 | 680 | 747 | 675 | 732 | 743 | 784 |
| White, non-Hispanic | 18,433 | 18,402 | 18,527 | 18,582 | 18,422 | 17,487 | 16,762 | 15,749 |
| Other or unknown | 617 | 744 | 847 | 840 | 797 | 1,020 | 865 | 1,001 |
| Non-U.S. citizens | 12,466 | 12,725 | 12,805 | 12,252 | 11,709 | 11,425 | 11,196 | 10,914 |
| Earth, atmospheric, & ocean sciences | 13,984 | 14,480 | 15,347 | 15,805 | 16,042 | 15,805 | 15,280 | 14,644 |
| Total U.S. citizens | 11,309 | 11,583 | 12,343 | 12,795 | 12,776 | 12,858 | 12,513 | 12,128 |
| Black, non-Hispanic | 123 | 141 | 202 | 227 | 203 | 219 | 223 | 206 |
| American Indian/Alaskan Native | 30 | 29 | 35 | 46 | 49 | 53 | 65 | 82 |
| Asian/Pacific Islander | 258 | 267 | 383 | 469 | 454 | 425 | 411 | 417 |
| Hispanic | 241 | 250 | 308 | 371 | 344 | 366 | 381 | 407 |
| White, non-Hispanic | 10,375 | 10,531 | 10,893 | 11,145 | 11,351 | 11,322 | 10,956 | 10,486 |
| Other or unknown | 282 | 365 | 522 | 537 | 375 | 473 | 477 | 530 |
| Non-U.S. citizens | 2,675 | 2,897 | 3,004 | 3,010 | 3,266 | 2,947 | 2,767 | 2,516 |
| Mathematical sciences | 19,774 | 19,952 | 20,355 | 20,000 | 19,579 | 18,509 | 18,015 | 16,759 |
| Total U.S. citizens | 13,210 | 13,318 | 13,878 | 13,866 | 13,516 | 12,700 | 12,254 | 11,211 |
| Black, non-Hispanic | 511 | 524 | 579 | 710 | 673 | 689 | 711 | 657 |
| American Indian/Alaskan Native | 20 | 20 | 27 | 32 | 36 | 70 | 41 | 43 |
| Asian/Pacific Islander | 822 | 866 | 963 | 1,020 | 1,208 | 1,121 | 1,225 | 1,052 |
| Hispanic | 351 | 349 | 376 | 415 | 369 | 400 | 425 | 426 |
| White, non-Hispanic | 10,605 | 10,457 | 10,851 | 10,572 | 10,496 | 9,659 | 9,201 | 8,382 |
| Other or unknown | 901 | 1,102 | 1,082 | 1,117 | 734 | 761 | 651 | 651 |
| Non-U.S. citizens | 6,564 | 6,634 | 6,477 | 6,134 | 6,063 | 5,809 | 5,761 | 5,548 |
| Computer sciences | 34,257 | 34,610 | 36,293 | 36,189 | 34,128 | 33,432 | 34,592 | 36,010 |
| Total U.S. citizens | 23,351 | 22,988 | 24,163 | 24,269 | 23,064 | 22,638 | 22,737 | 23,202 |
| Black, non-Hispanic | 985 | 1,093 | 1,108 | 1,168 | 1,182 | 1,155 | 1,278 | 1,303 |
| American Indian/Alaskan Native | 44 | 42 | 72 | 68 | 43 | 55 | 53 | 60 |
| Asian/Pacific Islander | 2,888 | 2,858 | 3,399 | 3,566 | 4,056 | 4,053 | 4,269 | 4,702 |
| Hispanic | 565 | 631 | 706 | 696 | 633 | 664 | 701 | 726 |
| White, non-Hispanic | 17,292 | 16,464 | 16,893 | 16,760 | 15,709 | 14,739 | 14,443 | 14,050 |
| Other or unknown | 1,577 | 1,900 | 1,985 | 2,011 | 1,441 | 1,972 | 1,993 | 2,361 |
| Non-U.S. citizens | 10,906 | 11,622 | 12,130 | 11,920 | 11,064 | 10,794 | 11,855 | 12,808 |

See explanatory information, if any, and SOURCE at end of table.

Table 12. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

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| Field, citizenship, and racial/ethnic background | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Agricultural sciences | 11,316 | 11,506 | 11,827 | 11,914 | 12,199 | 12,367 | 11,914 | 11,810 |
| Total U.S. citizens | 8,133 | 8,298 | 8,649 | 8,778 | 9,060 | 9,270 | 8,966 | 9,085 |
| Black, non-Hispanic | 158 | 145 | 209 | 235 | 239 | 294 | 268 | 229 |
| American Indian/Alaskan Native | 20 | 31 | 39 | 34 | 37 | 59 | 49 | 62 |
| Asian/Pacific Islander | 242 | 225 | 215 | 264 | 276 | 274 | 281 | 302 |
| Hispanic | 272 | 279 | 279 | 308 | 263 | 288 | 367 | 400 |
| White, non-Hispanic | 7,251 | 7,481 | 7,679 | 7,731 | 7,972 | 7,978 | 7,732 | 7,745 |
| Other or unknown | 190 | 137 | 228 | 206 | 273 | 377 | 269 | 347 |
| Non-U.S. citizens | 3,183 | 3,208 | 3,178 | 3,136 | 3,139 | 3,097 | 2,948 | 2,725 |
| Biological sciences | 49,989 | 51,778 | 54,177 | 56,452 | 58,143 | 58,736 | 58,128 | 57,135 |
| Total U.S. citizens | 38,470 | 39,282 | 41,358 | 43,525 | 45,314 | 46,528 | 46,638 | 45,969 |
| Black, non-Hispanic | 1,249 | 1,317 | 1,493 | 1,737 | 1,709 | 1,879 | 2,010 | 2,171 |
| American Indian/Alaskan Native | 142 | 129 | 141 | 157 | 183 | 205 | 200 | 198 |
| Asian/Pacific Islander | 2,228 | 2,346 | 2,822 | 3,456 | 3,953 | 4,299 | 4,464 | 4,478 |
| Hispanic | 1,220 | 1,374 | 1,459 | 1,649 | 1,651 | 1,823 | 1,847 | 1,983 |
| White, non-Hispanic | 32,677 | 33,058 | 34,229 | 35,094 | 36,389 | 36,509 | 36,327 | 35,041 |
| Other or unknown | 954 | 1,058 | 1,214 | 1,432 | 1,429 | 1,813 | 1,790 | 2,098 |
| Non-U.S. citizens | 11,519 | 12,496 | 12,819 | 12,927 | 12,829 | 12,208 | 11,490 | 11,166 |
| Psychology | 48,167 | 51,343 | 53,484 | 54,557 | 54,554 | 53,641 | 53,209 | 53,142 |
| Total U.S. citizens | 46,349 | 49,355 | 51,551 | 52,676 | 52,211 | 51,554 | 51,236 | 51,137 |
| Black, non-Hispanic | 2,226 | 2,455 | 2,758 | 3,284 | 3,529 | 3,359 | 3,455 | 3,641 |
| American Indian/Alaskan Native | 235 | 252 | 290 | 289 | 317 | 330 | 359 | 340 |
| Asian/Pacific Islander | 962 | 1,040 | 1,278 | 1,470 | 1,583 | 1,598 | 1,776 | 1,892 |
| Hispanic | 2,160 | 2,365 | 2,371 | 2,562 | 2,485 | 2,799 | 3,002 | 3,084 |
| White, non-Hispanic | 39,246 | 40,990 | 42,426 | 42,662 | 42,062 | 40,146 | 39,327 | 38,699 |
| Other or unknown | 1,520 | 2,253 | 2,428 | 2,409 | 2,235 | 3,322 | 3,317 | 3,481 |
| Non-U.S. citizens | 1,818 | 1,988 | 1,933 | 1,881 | 2,343 | 2,087 | 1,973 | 2,005 |
| Social sciences | 77,948 | 80,742 | 85,778 | 88,793 | 89,134 | 89,449 | 88,647 | 86,028 |
| Total U.S. citizens | 62,461 | 65,021 | 70,102 | 73,603 | 74,375 | 74,745 | 73,512 | 71,323 |
| Black, non-Hispanic | 5,082 | 5,292 | 5,915 | 6,355 | 6,436 | 6,935 | 7,245 | 7,330 |
| American Indian/Alaskan Native | 348 | 370 | 395 | 391 | 409 | 437 | 478 | 506 |
| Asian/Pacific Islander | 1,868 | 1,989 | 2,585 | 2,854 | 3,244 | 3,343 | 3,341 | 3,443 |
| Hispanic | 2,822 | 3,024 | 3,604 | 3,939 | 4,000 | 4,237 | 4,237 | 4,367 |
| White, non-Hispanic | 49,386 | 51,435 | 54,541 | 56,873 | 57,298 | 56,093 | 54,217 | 51,767 |
| Other or unknown | 2,955 | 2,911 | 3,062 | 3,191 | 2,988 | 3,700 | 3,994 | 3,910 |
| Non-U.S. citizens | 15,487 | 15,721 | 15,676 | 15,190 | 14,759 | 14,704 | 15,135 | 14,705 |
| Engineering, total | 107,625 | 113,576 | 118,035 | 116,858 | 113,023 | 107,199 | 103,223 | 101,008 |
| Total U.S. citizens | 69,426 | 72,233 | 76,595 | 77,591 | 76,039 | 71,732 | 68,194 | 64,586 |
| Black, non-Hispanic | 1,786 | 2,025 | 2,374 | 2,559 | 2,784 | 2,856 | 2,895 | 2,874 |
| American Indian/Alaskan Native | 152 | 185 | 177 | 211 | 242 | 231 | 234 | 238 |
| Asian/Pacific Islander | 6,687 | 7,116 | 8,492 | 8,987 | 9,777 | 9,008 | 8,437 | 8,154 |
| Hispanic | 1,886 | 2,124 | 2,463 | 2,694 | 2,861 | 2,808 | 2,935 | 2,811 |
| White, non-Hispanic | 53,207 | 54,784 | 57,396 | 57,440 | 56,020 | 51,956 | 49,112 | 46,017 |
| Other or unknown | 5,708 | 5,999 | 5,693 | 5,700 | 4,355 | 4,873 | 4,581 | 4,492 |
| Non-U.S. citizens | 38,199 | 41,343 | 41,440 | 39,267 | 36,984 | 35,467 | 35,029 | 36,422 |
| Chemical engineering | 6,735 | 7,127 | 7,397 | 7,516 | 7,608 | 7,424 | 7,373 | 7,247 |
| Total U.S. citizens | 3,791 | 3,939 | 4,122 | 4,348 | 4,601 | 4,473 | 4,505 | 4,403 |
| Black, non-Hispanic | 84 | 119 | 144 | 159 | 157 | 174 | 189 | 170 |
| American Indian/Alaskan Native | 5 | 22 | 15 | 14 | 18 | 21 | 30 | 18 |
| Asian/Pacific Islander | 316 | 399 | 379 | 461 | 524 | 458 | 482 | 512 |
| Hispanic | 143 | 159 | 176 | 180 | 171 | 202 | 200 | 142 |
| White, non-Hispanic | 3,151 | 3,140 | 3,236 | 3,388 | 3,521 | 3,420 | 3,381 | 3,343 |
| Other or unknown | 92 | 100 | 172 | 146 | 210 | 198 | 223 | 218 |
| Non-U.S. citizens | 2,944 | 3,188 | 3,275 | 3,168 | 3,007 | 2,951 | 2,868 | 2,844 |
| Civil engineering | 15,542 | 17,398 | 19,572 | 19,583 | 19,925 | 19,218 | 18,528 | 17,033 |
| Total U.S. citizens | 9,628 | 10,854 | 12,734 | 13,299 | 13,967 | 13,559 | 13,263 | 12,009 |
| Black, non-Hispanic | 232 | 279 | 343 | 393 | 424 | 471 | 491 | 443 |
| American Indian/Alaskan Native | 37 | 34 | 31 | 43 | 38 | 42 | 48 | 58 |
| Asian/Pacific Islander | 760 | 837 | 1,043 | 1,167 | 1,339 | 1,322 | 1,254 | 1,046 |
| Hispanic | 302 | 383 | 478 | 550 | 551 | 593 | 712 | 693 |
| White, non-Hispanic | 7,727 | 8,684 | 10,196 | 10,415 | 11,029 | 10,434 | 9,983 | 9,142 |
| Other or unknown | 570 | 637 | 643 | 731 | 586 | 697 | 775 | 627 |
| Non-U.S. citizens | 5,914 | 6,544 | 6,838 | 6,284 | 5,958 | 5,659 | 5,265 | 5,024 |

See explanatory information, if any, and SOURCE at end of table.

Table 12. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

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| Field, citizenship, and racial/ethnic background | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Electrical engineering | 33,722 | 35,182 | 36,460 | 35,314 | 33,050 | 30,747 | 29,736 | 30,617 |
| Total U.S. citizens | 22,127 | 22,366 | 23,627 | 22,874 | 21,644 | 19,529 | 18,374 | 17,948 |
| Black, non-Hispanic | 612 | 669 | 771 | 863 | 861 | 821 | 775 | 869 |
| American Indian/Alaskan Native | 49 | 39 | 38 | 45 | 53 | 52 | 51 | 46 |
| Asian/Pacific Islander | 3,050 | 3,026 | 3,755 | 3,737 | 4,088 | 3,697 | 3,540 | 3,481 |
| Hispanic | 576 | 661 | 748 | 841 | 853 | 784 | 792 | 810 |
| White, non-Hispanic | 15,662 | 15,571 | 15,996 | 15,650 | 14,336 | 12,640 | 11,769 | 11,106 |
| Other or unknown | 2,178 | 2,400 | 2,319 | 1,738 | 1,453 | 1,535 | 1,447 | 1,636 |
| Non-U.S. citizens | 11,595 | 12,816 | 12,833 | 12,440 | 11,406 | 11,218 | 11,362 | 12,669 |
| Industrial engineering | 11,248 | 12,676 | 13,525 | 13,596 | 13,661 | 13,143 | 12,399 | 11,725 |
| Total U.S. citizens | 8,129 | 8,902 | 9,682 | 10,153 | 10,095 | 9,819 | 9,102 | 8,388 |
| Black, non-Hispanic | 294 | 384 | 444 | 440 | 507 | 527 | 521 | 478 |
| American Indian/Alaskan Native | 23 | 39 | 42 | 36 | 23 | 23 | 21 | 23 |
| Asian/Pacific Islander | 450 | 586 | 794 | 863 | 852 | 837 | 737 | 729 |
| Hispanic | 231 | 253 | 297 | 332 | 375 | 374 | 410 | 390 |
| White, non-Hispanic | 6,407 | 7,016 | 7,375 | 7,448 | 7,483 | 7,025 | 6,676 | 6,199 |
| Other or unknown | 724 | 624 | 730 | 1,034 | 855 | 1,033 | 737 | 569 |
| Non-U.S. citizens | 3,119 | 3,774 | 3,843 | 3,443 | 3,566 | 3,324 | 3,297 | 3,337 |
| Mechanical engineering | 16,879 | 17,730 | 18,637 | 18,477 | 17,761 | 16,363 | 15,509 | 15,044 |
| Total U.S. citizens | 10,799 | 11,056 | 11,875 | 12,199 | 11,940 | 10,905 | 10,026 | 9,350 |
| Black, non-Hispanic | 247 | 246 | 320 | 336 | 398 | 403 | 417 | 428 |
| American Indian/Alaskan Native | 15 | 21 | 24 | 30 | 54 | 44 | 35 | 35 |
| Asian/Pacific Islander | 830 | 985 | 1,179 | 1,307 | 1,421 | 1,225 | 1,073 | 947 |
| Hispanic | 282 | 338 | 394 | 382 | 453 | 422 | 383 | 360 |
| White, non-Hispanic | 8,238 | 8,416 | 9,035 | 9,029 | 8,893 | 8,059 | 7,461 | 6,978 |
| Other or unknown | 1,187 | 1,050 | 923 | 1,115 | 721 | 752 | 657 | 602 |
| Non-U.S. citizens | 6,080 | 6,674 | 6,762 | 6,278 | 5,821 | 5,458 | 5,483 | 5,694 |
| Other engineering | 23,499 | 23,463 | 22,444 | 22,372 | 21,018 | 20,304 | 19,678 | 19,342 |
| Total U.S. citizens | 14,952 | 15,116 | 14,555 | 14,718 | 13,792 | 13,447 | 12,924 | 12,488 |
| Black, non-Hispanic | 317 | 328 | 352 | 368 | 437 | 460 | 502 | 486 |
| American Indian/Alaskan Native | 23 | 30 | 27 | 43 | 56 | 49 | 49 | 58 |
| Asian/Pacific Islander | 1,281 | 1,283 | 1,342 | 1,452 | 1,553 | 1,469 | 1,351 | 1,439 |
| Hispanic | 352 | 330 | 370 | 409 | 458 | 433 | 438 | 416 |
| White, non-Hispanic | 12,022 | 11,957 | 11,558 | 11,510 | 10,758 | 10,378 | 9,842 | 9,249 |
| Other or unknown | 957 | 1,188 | 906 | 936 | 530 | 658 | 742 | 840 |
| Non-U.S. citizens | 8,547 | 8,347 | 7,889 | 7,654 | 7,226 | 6,857 | 6,754 | 6,854 |
| Total, health fields | 55,043 | 58,565 | 62,988 | 68,563 | 73,291 | 77,177 | 78,856 | 79,460 |
| Total U.S. citizens | 50,790 | 54,010 | 58,522 | 63,946 | 68,889 | 72,821 | 74,019 | 74,577 |
| Black, non-Hispanic | 2,442 | 2,716 | 3,042 | 3,321 | 3,566 | 3,871 | 3,905 | 4,171 |
| American Indian/Alaskan Native | 216 | 245 | 272 | 297 | 342 | 341 | 368 | 369 |
| Asian/Pacific Islander | 1,646 | 1,923 | 2,214 | 2,790 | 3,142 | 3,460 | 3,996 | 4,321 |
| Hispanic | 1,855 | 2,008 | 2,379 | 2,671 | 2,686 | 3,147 | 3,196 | 3,119 |
| White, non-Hispanic | 43,086 | 45,211 | 48,734 | 52,398 | 56,268 | 58,549 | 59,082 | 58,474 |
| Other or unknown | 1,545 | 1,907 | 1,881 | 2,469 | 2,885 | 3,453 | 3,472 | 4,123 |
| Non-U.S. citizens | 4,253 | 4,555 | 4,466 | 4,617 | 4,402 | 4,356 | 4,837 | 4,883 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

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| Sex, field, and year | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens | | |
|--|---------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|--|--|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | | | |
| Total enrollment | | | | | | | | | | |
| Total, all surveyed fields: | | | | | | | | | | |
| 1994 | 504,542 | 21,177 | 1,725 | 29,616 | 15,967 | 311,987 | 17,512 | 106,558 | | |
| 1995 | 499,732 | 22,154 | 1,857 | 29,361 | 17,264 | 304,438 | 21,764 | 102,894 | | |
| 1996 | 494,219 | 22,976 | 1,907 | 29,943 | 17,834 | 297,159 | 21,409 | 102,991 | | |
| 1997 | 487,104 | 23,534 | 1,968 | 30,399 | 18,107 | 286,410 | 22,994 | 103,692 | | |
| Total, science and engineering fields: | | | | | | | | | | |
| 1994 | 431,251 | 17,611 | 1,383 | 26,474 | 13,281 | 255,719 | 14,627 | 102,156 | | |
| 1995 | 422,555 | 18,283 | 1,516 | 25,901 | 14,117 | 245,889 | 18,311 | 98,538 | | |
| 1996 | 415,363 | 19,071 | 1,539 | 25,947 | 14,638 | 238,077 | 17,937 | 98,154 | | |
| 1997 | 407,644 | 19,363 | 1,599 | 26,078 | 14,988 | 227,936 | 18,871 | 98,809 | | |
| Sciences, total: | | | | | | | | | | |
| 1994 | 318,228 | 14,827 | 1,141 | 16,697 | 10,420 | 199,699 | 10,272 | 65,172 | | |
| 1995 | 315,356 | 15,427 | 1,285 | 16,893 | 11,309 | 193,933 | 13,438 | 63,071 | | |
| 1996 | 312,140 | 16,176 | 1,305 | 17,510 | 11,703 | 188,965 | 13,356 | 63,125 | | |
| 1997 | 306,636 | 16,489 | 1,361 | 17,924 | 12,177 | 181,919 | 14,379 | 62,387 | | |
| Physical sciences: | | | | | | | | | | |
| 1994 | 34,449 | 856 | 67 | 1,923 | 675 | 18,422 | 797 | 11,709 | | |
| 1995 | 33,417 | 897 | 76 | 1,780 | 732 | 17,487 | 1,020 | 11,425 | | |
| 1996 | 32,355 | 986 | 60 | 1,743 | 743 | 16,762 | 865 | 11,196 | | |
| 1997 | 31,108 | 952 | 70 | 1,638 | 784 | 15,749 | 1,001 | 10,914 | | |
| Earth, atmospheric, & ocean sciences: | | | | | | | | | | |
| 1994 | 16,042 | 203 | 49 | 454 | 344 | 11,351 | 375 | 3,266 | | |
| 1995 | 15,805 | 219 | 53 | 425 | 366 | 11,322 | 473 | 2,947 | | |
| 1996 | 15,280 | 223 | 65 | 411 | 381 | 10,956 | 477 | 2,767 | | |
| 1997 | 14,644 | 206 | 82 | 417 | 407 | 10,486 | 530 | 2,516 | | |
| Mathematical sciences: | | | | | | | | | | |
| 1994 | 19,579 | 673 | 36 | 1,208 | 369 | 10,496 | 734 | 6,063 | | |
| 1995 | 18,509 | 689 | 70 | 1,121 | 400 | 9,659 | 761 | 5,809 | | |
| 1996 | 18,015 | 711 | 41 | 1,225 | 425 | 9,201 | 651 | 5,761 | | |
| 1997 | 16,759 | 657 | 43 | 1,052 | 426 | 8,382 | 651 | 5,548 | | |
| Computer sciences: | | | | | | | | | | |
| 1994 | 34,128 | 1,182 | 43 | 4,056 | 633 | 15,709 | 1,441 | 11,064 | | |
| 1995 | 33,432 | 1,155 | 55 | 4,053 | 664 | 14,739 | 1,972 | 10,794 | | |
| 1996 | 34,592 | 1,278 | 53 | 4,269 | 701 | 14,443 | 1,993 | 11,855 | | |
| 1997 | 36,010 | 1,303 | 60 | 4,702 | 726 | 14,050 | 2,361 | 12,808 | | |
| Agricultural sciences: | | | | | | | | | | |
| 1994 | 12,199 | 239 | 37 | 276 | 263 | 7,972 | 273 | 3,139 | | |
| 1995 | 12,367 | 294 | 59 | 274 | 288 | 7,978 | 377 | 3,097 | | |
| 1996 | 11,914 | 268 | 49 | 281 | 367 | 7,732 | 269 | 2,948 | | |
| 1997 | 11,810 | 229 | 62 | 302 | 400 | 7,745 | 347 | 2,725 | | |
| Biological sciences: | | | | | | | | | | |
| 1994 | 58,143 | 1,709 | 183 | 3,953 | 1,651 | 36,389 | 1,429 | 12,829 | | |
| 1995 | 58,736 | 1,879 | 205 | 4,299 | 1,823 | 36,509 | 1,813 | 12,208 | | |
| 1996 | 58,128 | 2,010 | 200 | 4,464 | 1,847 | 36,327 | 1,790 | 11,490 | | |
| 1997 | 57,135 | 2,171 | 198 | 4,478 | 1,983 | 35,041 | 2,098 | 11,166 | | |
| Psychology: | | | | | | | | | | |
| 1994 | 54,554 | 3,529 | 317 | 1,583 | 2,485 | 42,062 | 2,235 | 2,343 | | |
| 1995 | 53,641 | 3,359 | 330 | 1,598 | 2,799 | 40,146 | 3,322 | 2,087 | | |
| 1996 | 53,209 | 3,455 | 359 | 1,776 | 3,002 | 39,327 | 3,317 | 1,973 | | |
| 1997 | 53,142 | 3,641 | 340 | 1,892 | 3,084 | 38,699 | 3,481 | 2,005 | | |
| Social sciences: | | | | | | | | | | |
| 1994 | 89,134 | 6,436 | 409 | 3,244 | 4,000 | 57,298 | 2,988 | 14,759 | | |
| 1995 | 89,449 | 6,935 | 437 | 3,343 | 4,237 | 56,093 | 3,700 | 14,704 | | |
| 1996 | 88,647 | 7,245 | 478 | 3,341 | 4,237 | 54,217 | 3,994 | 15,135 | | |
| 1997 | 86,028 | 7,330 | 506 | 3,443 | 4,367 | 51,767 | 3,910 | 14,705 | | |

See explanatory information, if any, and SOURCE at end of table.

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

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| Sex, field, and year | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens | | |
|--|---------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|--|--|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | | | |
| Total enrollment | | | | | | | | | | |
| Engineering: | | | | | | | | | | |
| 1994 | 113,023 | 2,784 | 242 | 9,777 | 2,861 | 56,020 | 4,355 | 36,984 | | |
| 1995 | 107,199 | 2,856 | 231 | 9,008 | 2,808 | 51,956 | 4,873 | 35,467 | | |
| 1996 | 103,223 | 2,895 | 234 | 8,437 | 2,935 | 49,112 | 4,581 | 35,029 | | |
| 1997 | 101,008 | 2,874 | 238 | 8,154 | 2,811 | 46,017 | 4,492 | 36,422 | | |
| Health fields: | | | | | | | | | | |
| 1994 | 73,291 | 3,566 | 342 | 3,142 | 2,686 | 56,268 | 2,885 | 4,402 | | |
| 1995 | 77,177 | 3,871 | 341 | 3,460 | 3,147 | 58,549 | 3,453 | 4,356 | | |
| 1996 | 78,856 | 3,905 | 368 | 3,996 | 3,196 | 59,082 | 3,472 | 4,837 | | |
| 1997 | 79,460 | 4,171 | 369 | 4,321 | 3,119 | 58,474 | 4,123 | 4,883 | | |
| Men | | | | | | | | | | |
| Total, all surveyed fields: | | | | | | | | | | |
| 1994 | 288,373 | 8,669 | 771 | 18,187 | 7,836 | 164,645 | 9,868 | 78,397 | | |
| 1995 | 279,406 | 8,934 | 834 | 17,487 | 8,188 | 157,487 | 12,022 | 74,454 | | |
| 1996 | 271,738 | 8,974 | 863 | 17,274 | 8,474 | 151,294 | 11,353 | 73,506 | | |
| 1997 | 264,421 | 9,111 | 890 | 17,193 | 8,512 | 143,683 | 12,037 | 72,995 | | |
| Total, science and engineering fields: | | | | | | | | | | |
| 1994 | 272,120 | 8,049 | 693 | 17,152 | 7,198 | 153,625 | 9,136 | 76,267 | | |
| 1995 | 262,341 | 8,211 | 753 | 16,371 | 7,406 | 146,057 | 11,181 | 72,362 | | |
| 1996 | 253,629 | 8,253 | 768 | 15,953 | 7,673 | 139,370 | 10,588 | 71,024 | | |
| 1997 | 245,615 | 8,344 | 804 | 15,769 | 7,696 | 131,453 | 11,008 | 70,541 | | |
| Sciences, total: | | | | | | | | | | |
| 1994 | 177,146 | 6,082 | 514 | 9,190 | 4,917 | 106,833 | 5,483 | 44,127 | | |
| 1995 | 173,156 | 6,254 | 571 | 9,143 | 5,210 | 102,983 | 7,069 | 41,926 | | |
| 1996 | 168,658 | 6,301 | 577 | 9,297 | 5,407 | 98,885 | 6,785 | 41,406 | | |
| 1997 | 163,322 | 6,385 | 624 | 9,406 | 5,525 | 93,702 | 7,385 | 40,295 | | |
| Physical sciences: | | | | | | | | | | |
| 1994 | 25,290 | 497 | 49 | 1,253 | 444 | 13,745 | 562 | 8,740 | | |
| 1995 | 24,327 | 529 | 57 | 1,159 | 470 | 13,004 | 722 | 8,386 | | |
| 1996 | 23,303 | 550 | 42 | 1,096 | 455 | 12,387 | 621 | 8,152 | | |
| 1997 | 22,257 | 508 | 46 | 1,045 | 500 | 11,571 | 689 | 7,898 | | |
| Earth, atmospheric, & ocean sciences: | | | | | | | | | | |
| 1994 | 10,689 | 118 | 26 | 297 | 214 | 7,403 | 242 | 2,389 | | |
| 1995 | 10,336 | 117 | 32 | 264 | 224 | 7,247 | 302 | 2,150 | | |
| 1996 | 9,786 | 116 | 36 | 250 | 233 | 6,865 | 292 | 1,994 | | |
| 1997 | 9,187 | 105 | 47 | 253 | 240 | 6,413 | 332 | 1,797 | | |
| Mathematical sciences: | | | | | | | | | | |
| 1994 | 13,044 | 343 | 24 | 735 | 241 | 6,824 | 503 | 4,374 | | |
| 1995 | 12,248 | 385 | 43 | 669 | 248 | 6,230 | 520 | 4,153 | | |
| 1996 | 11,794 | 368 | 24 | 702 | 266 | 5,910 | 425 | 4,099 | | |
| 1997 | 10,875 | 348 | 29 | 624 | 256 | 5,335 | 441 | 3,842 | | |
| Computer sciences: | | | | | | | | | | |
| 1994 | 26,043 | 696 | 36 | 2,695 | 473 | 12,442 | 1,053 | 8,648 | | |
| 1995 | 25,306 | 652 | 40 | 2,715 | 502 | 11,664 | 1,535 | 8,198 | | |
| 1996 | 25,802 | 718 | 39 | 2,836 | 524 | 11,412 | 1,481 | 8,792 | | |
| 1997 | 26,133 | 768 | 43 | 3,050 | 516 | 10,909 | 1,711 | 9,136 | | |
| Agricultural sciences: | | | | | | | | | | |
| 1994 | 7,911 | 118 | 20 | 168 | 142 | 5,002 | 165 | 2,296 | | |
| 1995 | 7,935 | 150 | 29 | 147 | 154 | 4,988 | 235 | 2,232 | | |
| 1996 | 7,502 | 131 | 23 | 142 | 203 | 4,734 | 168 | 2,101 | | |
| 1997 | 7,277 | 105 | 34 | 164 | 242 | 4,639 | 189 | 1,904 | | |
| Biological sciences: | | | | | | | | | | |
| 1994 | 29,988 | 671 | 77 | 2,022 | 769 | 18,470 | 714 | 7,265 | | |
| 1995 | 29,890 | 691 | 87 | 2,165 | 854 | 18,393 | 963 | 6,737 | | |
| 1996 | 29,360 | 725 | 93 | 2,257 | 852 | 18,290 | 943 | 6,200 | | |
| 1997 | 28,513 | 783 | 91 | 2,170 | 900 | 17,496 | 1,058 | 6,015 | | |

See explanatory information, if any, and SOURCE at end of table.

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

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| Sex, field, and year | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens | | |
|--|---------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|--|--|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | | | |
| Men | | | | | | | | | | |
| Psychology: | | | | | | | | | | |
| 1994 | 16,416 | 851 | 97 | 435 | 705 | 12,712 | 675 | 941 | | |
| 1995 | 15,877 | 817 | 93 | 416 | 762 | 11,983 | 949 | 857 | | |
| 1996 | 15,403 | 810 | 111 | 469 | 829 | 11,574 | 902 | 708 | | |
| 1997 | 15,499 | 908 | 118 | 506 | 860 | 11,300 | 1,058 | 749 | | |
| Social sciences: | | | | | | | | | | |
| 1994 | 47,765 | 2,788 | 185 | 1,585 | 1,929 | 30,235 | 1,569 | 9,474 | | |
| 1995 | 47,237 | 2,913 | 190 | 1,608 | 1,996 | 29,474 | 1,843 | 9,213 | | |
| 1996 | 45,708 | 2,883 | 209 | 1,545 | 2,045 | 27,713 | 1,953 | 9,360 | | |
| 1997 | 43,581 | 2,860 | 216 | 1,594 | 2,011 | 26,039 | 1,907 | 8,954 | | |
| Engineering: | | | | | | | | | | |
| 1994 | 94,974 | 1,967 | 179 | 7,962 | 2,281 | 46,792 | 3,653 | 32,140 | | |
| 1995 | 89,185 | 1,957 | 182 | 7,228 | 2,196 | 43,074 | 4,112 | 30,436 | | |
| 1996 | 84,971 | 1,952 | 191 | 6,656 | 2,266 | 40,485 | 3,803 | 29,618 | | |
| 1997 | 82,293 | 1,959 | 180 | 6,363 | 2,171 | 37,751 | 3,623 | 30,246 | | |
| Health fields: | | | | | | | | | | |
| 1994 | 16,253 | 620 | 78 | 1,035 | 638 | 11,020 | 732 | 2,130 | | |
| 1995 | 17,065 | 723 | 81 | 1,116 | 782 | 11,430 | 841 | 2,092 | | |
| 1996 | 18,109 | 721 | 95 | 1,321 | 801 | 11,924 | 765 | 2,482 | | |
| 1997 | 18,806 | 767 | 86 | 1,424 | 816 | 12,230 | 1,029 | 2,454 | | |
| Women | | | | | | | | | | |
| Total, all surveyed fields: | | | | | | | | | | |
| 1994 | 216,169 | 12,508 | 954 | 11,429 | 8,131 | 147,342 | 7,644 | 28,161 | | |
| 1995 | 220,326 | 13,220 | 1,023 | 11,874 | 9,076 | 146,951 | 9,742 | 28,440 | | |
| 1996 | 222,481 | 14,002 | 1,044 | 12,669 | 9,360 | 145,865 | 10,056 | 29,485 | | |
| 1997 | 222,683 | 14,423 | 1,078 | 13,206 | 9,595 | 142,727 | 10,957 | 30,697 | | |
| Total, science and engineering fields: | | | | | | | | | | |
| 1994 | 159,131 | 9,562 | 690 | 9,322 | 6,083 | 102,094 | 5,491 | 25,889 | | |
| 1995 | 160,214 | 10,072 | 763 | 9,530 | 6,711 | 99,832 | 7,130 | 26,176 | | |
| 1996 | 161,734 | 10,818 | 771 | 9,994 | 6,965 | 98,707 | 7,349 | 27,130 | | |
| 1997 | 162,029 | 11,019 | 795 | 10,309 | 7,292 | 96,483 | 7,863 | 28,268 | | |
| Sciences, total: | | | | | | | | | | |
| 1994 | 141,082 | 8,745 | 627 | 7,507 | 5,503 | 92,866 | 4,789 | 21,045 | | |
| 1995 | 142,200 | 9,173 | 714 | 7,750 | 6,099 | 90,950 | 6,369 | 21,145 | | |
| 1996 | 143,482 | 9,875 | 728 | 8,213 | 6,296 | 90,080 | 6,571 | 21,719 | | |
| 1997 | 143,314 | 10,104 | 737 | 8,518 | 6,652 | 88,217 | 6,994 | 22,092 | | |
| Physical sciences: | | | | | | | | | | |
| 1994 | 9,159 | 359 | 18 | 670 | 231 | 4,677 | 235 | 2,969 | | |
| 1995 | 9,090 | 368 | 19 | 621 | 262 | 4,483 | 298 | 3,039 | | |
| 1996 | 9,052 | 436 | 18 | 647 | 288 | 4,375 | 244 | 3,044 | | |
| 1997 | 8,851 | 444 | 24 | 593 | 284 | 4,178 | 312 | 3,016 | | |
| Earth, atmospheric, & ocean sciences: | | | | | | | | | | |
| 1994 | 5,353 | 85 | 23 | 157 | 130 | 3,948 | 133 | 877 | | |
| 1995 | 5,469 | 102 | 21 | 161 | 142 | 4,075 | 171 | 797 | | |
| 1996 | 5,494 | 107 | 29 | 161 | 148 | 4,091 | 185 | 773 | | |
| 1997 | 5,457 | 101 | 35 | 164 | 167 | 4,073 | 198 | 719 | | |
| Mathematical sciences: | | | | | | | | | | |
| 1994 | 6,535 | 330 | 12 | 473 | 128 | 3,672 | 231 | 1,689 | | |
| 1995 | 6,261 | 304 | 27 | 452 | 152 | 3,429 | 241 | 1,656 | | |
| 1996 | 6,221 | 343 | 17 | 523 | 159 | 3,291 | 226 | 1,662 | | |
| 1997 | 5,884 | 309 | 14 | 428 | 170 | 3,047 | 210 | 1,706 | | |
| Computer sciences: | | | | | | | | | | |
| 1994 | 8,085 | 486 | 7 | 1,361 | 160 | 3,267 | 388 | 2,416 | | |
| 1995 | 8,126 | 503 | 15 | 1,338 | 162 | 3,075 | 437 | 2,596 | | |
| 1996 | 8,790 | 560 | 14 | 1,433 | 177 | 3,031 | 512 | 3,063 | | |
| 1997 | 9,877 | 535 | 17 | 1,652 | 210 | 3,141 | 650 | 3,672 | | |

See explanatory information, if any, and SOURCE at end of table.

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

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| Sex, field, and year | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens | | |
|-------------------------------|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|--|--|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | | | |
| Women | | | | | | | | | | |
| Agricultural sciences: | | | | | | | | | | |
| 1994 | 4,288 | 121 | 17 | 108 | 121 | 2,970 | 108 | 843 | | |
| 1995 | 4,432 | 144 | 30 | 127 | 134 | 2,990 | 142 | 865 | | |
| 1996 | 4,412 | 137 | 26 | 139 | 164 | 2,998 | 101 | 847 | | |
| 1997 | 4,533 | 124 | 28 | 138 | 158 | 3,106 | 158 | 821 | | |
| Biological sciences: | | | | | | | | | | |
| 1994 | 28,155 | 1,038 | 106 | 1,931 | 882 | 17,919 | 715 | 5,564 | | |
| 1995 | 28,846 | 1,188 | 118 | 2,134 | 969 | 18,116 | 850 | 5,471 | | |
| 1996 | 28,768 | 1,285 | 107 | 2,207 | 995 | 18,037 | 847 | 5,290 | | |
| 1997 | 28,622 | 1,388 | 107 | 2,308 | 1,083 | 17,545 | 1,040 | 5,151 | | |
| Psychology: | | | | | | | | | | |
| 1994 | 38,138 | 2,678 | 220 | 1,148 | 1,780 | 29,350 | 1,560 | 1,402 | | |
| 1995 | 37,764 | 2,542 | 237 | 1,182 | 2,037 | 28,163 | 2,373 | 1,230 | | |
| 1996 | 37,806 | 2,645 | 248 | 1,307 | 2,173 | 27,753 | 2,415 | 1,265 | | |
| 1997 | 37,643 | 2,733 | 222 | 1,386 | 2,224 | 27,399 | 2,423 | 1,256 | | |
| Social sciences: | | | | | | | | | | |
| 1994 | 41,369 | 3,648 | 224 | 1,659 | 2,071 | 27,063 | 1,419 | 5,285 | | |
| 1995 | 42,212 | 4,022 | 247 | 1,735 | 2,241 | 26,619 | 1,857 | 5,491 | | |
| 1996 | 42,939 | 4,362 | 269 | 1,796 | 2,192 | 26,504 | 2,041 | 5,775 | | |
| 1997 | 42,447 | 4,470 | 290 | 1,849 | 2,356 | 25,728 | 2,003 | 5,751 | | |
| Engineering: | | | | | | | | | | |
| 1994 | 18,049 | 817 | 63 | 1,815 | 580 | 9,228 | 702 | 4,844 | | |
| 1995 | 18,014 | 899 | 49 | 1,780 | 612 | 8,882 | 761 | 5,031 | | |
| 1996 | 18,252 | 943 | 43 | 1,781 | 669 | 8,627 | 778 | 5,411 | | |
| 1997 | 18,715 | 915 | 58 | 1,791 | 640 | 8,266 | 869 | 6,176 | | |
| Health fields: | | | | | | | | | | |
| 1994 | 57,038 | 2,946 | 264 | 2,107 | 2,048 | 45,248 | 2,153 | 2,272 | | |
| 1995 | 60,112 | 3,148 | 260 | 2,344 | 2,365 | 47,119 | 2,612 | 2,264 | | |
| 1996 | 60,747 | 3,184 | 273 | 2,675 | 2,395 | 47,158 | 2,707 | 2,355 | | |
| 1997 | 60,654 | 3,404 | 283 | 2,897 | 2,303 | 46,244 | 3,094 | 2,429 | | |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 14. Graduate students in science, engineering, and health fields in public institutions,
by detailed field: 1990-97**

Page 1 of 1

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 316,781 | 330,251 | 345,759 | 353,017 | 353,662 | 350,331 | 345,756 | 340,306 |
| Total, science and engineering fields | 275,938 | 287,076 | 299,547 | 303,363 | 300,537 | 294,750 | 288,282 | 282,654 |
| Sciences, total | 201,722 | 207,826 | 216,723 | 221,017 | 220,739 | 218,844 | 215,375 | 211,547 |
| Physical sciences, total | 24,726 | 25,193 | 25,687 | 25,773 | 25,128 | 24,527 | 23,646 | 22,721 |
| Astronomy | 536 | 546 | 561 | 579 | 591 | 556 | 525 | 471 |
| Chemistry | 13,823 | 13,980 | 14,426 | 14,649 | 14,435 | 14,402 | 14,179 | 13,837 |
| Physics | 10,054 | 10,281 | 10,283 | 10,090 | 9,618 | 9,114 | 8,561 | 8,041 |
| Physical sciences, n.e.c. | 313 | 386 | 417 | 455 | 484 | 455 | 381 | 372 |
| Earth, atmos., & ocean sci., total | 11,591 | 11,928 | 12,683 | 13,077 | 13,189 | 13,255 | 12,885 | 12,425 |
| Atmospheric sciences | 901 | 948 | 1,064 | 1,094 | 1,090 | 1,047 | 1,066 | 1,068 |
| Geosciences | 6,301 | 6,207 | 6,356 | 6,384 | 6,327 | 6,279 | 6,063 | 5,802 |
| Oceanography | 1,919 | 1,953 | 2,076 | 2,134 | 2,294 | 2,263 | 2,184 | 2,067 |
| Earth, atmos., & ocean sci., n.e.c. | 2,470 | 2,820 | 3,187 | 3,465 | 3,478 | 3,666 | 3,572 | 3,488 |
| Mathematical sciences | 15,514 | 15,602 | 15,910 | 15,645 | 15,204 | 14,253 | 13,878 | 12,765 |
| Computer sciences | 20,166 | 20,867 | 21,547 | 21,535 | 20,560 | 20,532 | 20,848 | 22,218 |
| Agricultural sciences | 10,830 | 10,986 | 11,332 | 11,430 | 11,637 | 11,842 | 11,422 | 11,347 |
| Biological sciences, total | 36,793 | 37,951 | 39,748 | 41,403 | 42,529 | 42,486 | 42,006 | 41,117 |
| Anatomy | 715 | 765 | 742 | 760 | 805 | 779 | 793 | 778 |
| Biochemistry | 3,464 | 3,545 | 3,655 | 3,701 | 3,914 | 3,891 | 3,730 | 3,610 |
| Biology | 9,492 | 9,843 | 10,313 | 10,795 | 10,754 | 10,621 | 10,979 | 10,878 |
| Biometry/epidemiology | 1,082 | 1,226 | 1,562 | 1,728 | 1,732 | 1,724 | 1,777 | 1,734 |
| Biophysics | 356 | 387 | 417 | 426 | 415 | 472 | 459 | 419 |
| Botany | 2,564 | 2,522 | 2,559 | 2,573 | 2,626 | 2,469 | 2,367 | 2,258 |
| Cell biology | 1,442 | 1,587 | 1,824 | 2,089 | 2,285 | 2,358 | 2,371 | 2,359 |
| Ecology | 1,030 | 1,032 | 1,123 | 1,234 | 1,387 | 1,490 | 1,450 | 1,513 |
| Entomology/parasitology | 1,105 | 1,102 | 1,127 | 1,186 | 1,193 | 1,179 | 1,171 | 1,101 |
| Genetics | 998 | 1,058 | 1,133 | 1,147 | 1,083 | 1,077 | 1,119 | 1,144 |
| Microbio., immunology, & virology | 3,641 | 3,570 | 3,556 | 3,582 | 3,617 | 3,554 | 3,451 | 3,366 |
| Nutrition | 3,465 | 3,464 | 3,450 | 3,523 | 3,731 | 3,884 | 3,786 | 3,632 |
| Pathology | 928 | 1,016 | 1,007 | 1,012 | 1,079 | 1,056 | 1,059 | 1,063 |
| Pharmacology | 1,634 | 1,672 | 1,757 | 1,871 | 1,979 | 1,872 | 1,797 | 1,750 |
| Physiology | 1,498 | 1,530 | 1,526 | 1,559 | 1,521 | 1,548 | 1,439 | 1,373 |
| Zoology | 1,970 | 2,036 | 1,997 | 1,976 | 1,951 | 1,914 | 1,780 | 1,598 |
| Biosciences, n.e.c. | 1,409 | 1,596 | 2,000 | 2,241 | 2,457 | 2,598 | 2,478 | 2,541 |
| Psychology | 27,634 | 28,483 | 29,642 | 29,574 | 29,503 | 29,197 | 28,290 | 28,628 |
| Social sciences, total | 54,468 | 56,816 | 60,174 | 62,580 | 62,989 | 62,752 | 62,400 | 60,326 |
| Agricultural economics | 2,158 | 2,249 | 2,404 | 2,303 | 2,174 | 2,205 | 2,031 | 1,973 |
| Anthropology (cultural & social) | 4,737 | 4,965 | 5,205 | 5,457 | 5,646 | 5,602 | 5,678 | 5,492 |
| Economics (except agricultural) | 7,959 | 8,375 | 8,747 | 8,768 | 8,598 | 8,355 | 7,953 | 7,225 |
| Geography | 3,343 | 3,561 | 3,799 | 4,052 | 4,168 | 4,077 | 4,013 | 3,994 |
| Linguistics | 2,394 | 2,382 | 2,442 | 2,486 | 2,419 | 2,383 | 2,281 | 2,168 |
| Political science | 20,032 | 20,757 | 21,871 | 22,625 | 21,983 | 21,869 | 21,115 | 20,297 |
| Sociology | 5,909 | 6,481 | 6,880 | 7,167 | 7,243 | 7,271 | 7,220 | 7,210 |
| Sociology/anthropology | 825 | 615 | 690 | 738 | 796 | 749 | 737 | 779 |
| Social sciences, other | 7,111 | 7,431 | 8,136 | 8,984 | 9,962 | 10,241 | 11,372 | 11,188 |
| Engineering, total | 74,216 | 79,250 | 82,824 | 82,346 | 79,798 | 75,906 | 72,907 | 71,107 |
| Aerospace engineering | 2,982 | 3,241 | 3,199 | 3,126 | 2,917 | 2,598 | 2,435 | 2,332 |
| Agricultural engineering | 898 | 943 | 967 | 970 | 1,006 | 981 | 959 | 893 |
| Biomedical engineering | 1,284 | 1,317 | 1,535 | 1,639 | 1,641 | 1,656 | 1,700 | 1,844 |
| Chemical engineering | 4,845 | 5,166 | 5,413 | 5,532 | 5,592 | 5,440 | 5,348 | 5,173 |
| Civil engineering | 11,688 | 13,136 | 14,752 | 14,743 | 14,948 | 14,534 | 14,091 | 13,040 |
| Electrical engineering | 21,142 | 22,475 | 23,610 | 23,066 | 21,943 | 20,636 | 19,523 | 20,126 |
| Engineering science | 1,226 | 1,367 | 1,470 | 1,432 | 1,368 | 1,294 | 1,252 | 1,122 |
| Industrial/manufacturing eng. | 7,174 | 8,390 | 9,095 | 9,228 | 9,193 | 8,593 | 8,105 | 7,580 |
| Mechanical engineering | 11,825 | 12,769 | 13,656 | 13,489 | 12,992 | 12,144 | 11,595 | 11,166 |
| Metallurgical/materials eng. | 3,194 | 3,461 | 3,769 | 3,741 | 3,667 | 3,454 | 3,313 | 3,269 |
| Nuclear engineering | 1,073 | 1,093 | 1,081 | 1,094 | 1,062 | 975 | 826 | 751 |
| Engineering, other | 6,885 | 5,892 | 4,277 | 4,286 | 3,469 | 3,601 | 3,760 | 3,811 |
| Total, health fields | 40,843 | 43,175 | 46,212 | 49,654 | 53,125 | 55,581 | 57,474 | 57,652 |
| Clinical fields | 1,322 | 1,385 | 1,620 | 1,670 | 1,845 | 1,832 | 1,952 | 2,173 |
| Dental sciences | 746 | 791 | 840 | 862 | 919 | 925 | 992 | 1,113 |
| Nursing | 15,999 | 16,709 | 17,689 | 19,094 | 21,232 | 22,116 | 21,505 | 20,955 |
| Pharmaceutical sciences | 2,218 | 2,243 | 2,258 | 2,349 | 2,335 | 2,385 | 2,429 | 2,489 |
| Preventive medicine/community health | 5,641 | 5,927 | 6,079 | 6,860 | 6,929 | 7,254 | 7,135 | 6,596 |
| Speech pathology/audiology | 7,162 | 7,635 | 8,227 | 8,800 | 9,423 | 9,918 | 10,778 | 11,063 |
| Veterinary sciences | 821 | 821 | 880 | 802 | 807 | 875 | 894 | 1,123 |
| Other health fields | 6,934 | 7,664 | 8,619 | 9,217 | 9,635 | 10,276 | 11,789 | 12,140 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 15. Graduate students in science, engineering, and health fields in private institutions,
by detailed field: 1990-97**

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 135,397 | 141,011 | 147,873 | 151,432 | 150,880 | 149,401 | 148,463 | 146,798 |
| Total, science and engineering fields | 121,197 | 125,621 | 131,097 | 132,523 | 130,714 | 127,805 | 127,081 | 124,990 |
| Sciences, total | 87,788 | 91,295 | 95,886 | 98,011 | 97,489 | 96,512 | 96,765 | 95,089 |
| Physical sciences, total | 9,349 | 9,517 | 9,661 | 9,545 | 9,321 | 8,890 | 8,709 | 8,387 |
| Astronomy | 274 | 283 | 308 | 301 | 382 | 356 | 349 | 307 |
| Chemistry | 5,295 | 5,427 | 5,503 | 5,482 | 5,362 | 5,192 | 5,179 | 4,957 |
| Physics | 3,759 | 3,800 | 3,839 | 3,751 | 3,544 | 3,311 | 3,167 | 3,106 |
| Physical sciences, n.e.c. | 21 | 7 | 11 | 11 | 33 | 31 | 14 | 17 |
| Earth, atmos., & ocean sci., total | 2,393 | 2,552 | 2,664 | 2,728 | 2,853 | 2,550 | 2,395 | 2,219 |
| Atmospheric sciences | 28 | 20 | 25 | 18 | 19 | 25 | 20 | 24 |
| Geosciences | 1,391 | 1,360 | 1,388 | 1,401 | 1,414 | 1,329 | 1,260 | 1,195 |
| Oceanography | 414 | 433 | 454 | 477 | 559 | 440 | 414 | 391 |
| Earth, atmos., & ocean sci., n.e.c. | 560 | 739 | 797 | 832 | 861 | 756 | 701 | 609 |
| Mathematical sciences | 4,260 | 4,350 | 4,445 | 4,355 | 4,375 | 4,256 | 4,137 | 3,994 |
| Computer sciences | 14,091 | 13,743 | 14,746 | 14,654 | 13,568 | 12,900 | 13,744 | 13,792 |
| Agricultural sciences | 486 | 520 | 495 | 484 | 562 | 525 | 492 | 463 |
| Biological sciences, total | 13,196 | 13,827 | 14,429 | 15,049 | 15,614 | 16,250 | 16,122 | 16,018 |
| Anatomy | 285 | 286 | 288 | 267 | 274 | 277 | 318 | 316 |
| Biochemistry | 1,575 | 1,656 | 1,721 | 1,812 | 1,718 | 1,659 | 1,535 | 1,483 |
| Biology | 3,535 | 3,449 | 3,561 | 3,532 | 3,466 | 3,663 | 3,656 | 3,765 |
| Biometry/epidemiology | 789 | 806 | 803 | 930 | 978 | 1,088 | 1,224 | 1,166 |
| Biophysics | 286 | 310 | 334 | 354 | 379 | 373 | 374 | 329 |
| Botany | 169 | 172 | 130 | 141 | 122 | 140 | 137 | 144 |
| Cell biology | 1,113 | 1,222 | 1,269 | 1,285 | 1,483 | 1,532 | 1,525 | 1,622 |
| Ecology | 106 | 148 | 178 | 176 | 179 | 190 | 165 | 146 |
| Entomology/parasitology | 68 | 69 | 66 | 61 | 70 | 62 | 63 | 60 |
| Genetics | 410 | 462 | 506 | 638 | 616 | 623 | 610 | 616 |
| Microbio., immunology, & virology | 1,232 | 1,358 | 1,416 | 1,486 | 1,524 | 1,518 | 1,512 | 1,488 |
| Nutrition | 707 | 700 | 709 | 865 | 1,016 | 1,132 | 1,073 | 918 |
| Pathology | 426 | 433 | 449 | 563 | 628 | 614 | 597 | 611 |
| Pharmacology | 719 | 760 | 772 | 774 | 851 | 828 | 855 | 832 |
| Physiology | 738 | 802 | 791 | 813 | 857 | 992 | 938 | 925 |
| Zoology | 134 | 155 | 142 | 144 | 141 | 154 | 131 | 132 |
| Biosciences, n.e.c. | 904 | 1,039 | 1,294 | 1,208 | 1,312 | 1,405 | 1,409 | 1,465 |
| Psychology | 20,533 | 22,860 | 23,842 | 24,983 | 25,051 | 24,444 | 24,919 | 24,514 |
| Social sciences, total | 23,480 | 23,926 | 25,604 | 26,213 | 26,145 | 26,697 | 26,247 | 25,702 |
| Agricultural economics | 115 | 115 | 118 | 112 | 115 | 133 | 86 | 70 |
| Anthropology (cultural & social) | 1,742 | 1,766 | 1,918 | 1,904 | 2,019 | 2,091 | 2,095 | 2,066 |
| Economics (except agricultural) | 4,367 | 4,332 | 4,505 | 4,446 | 4,315 | 4,318 | 4,127 | 3,844 |
| Geography | 187 | 199 | 303 | 326 | 334 | 294 | 318 | 293 |
| Linguistics | 1,010 | 1,043 | 835 | 835 | 860 | 811 | 875 | 840 |
| Political science | 10,550 | 10,950 | 11,926 | 12,451 | 12,334 | 12,429 | 12,137 | 11,742 |
| Sociology | 1,892 | 1,912 | 2,131 | 2,258 | 2,255 | 2,293 | 2,205 | 2,213 |
| Sociology/anthropology | 339 | 284 | 289 | 197 | 191 | 192 | 186 | 169 |
| Social sciences, other | 3,278 | 3,325 | 3,579 | 3,684 | 3,722 | 4,136 | 4,218 | 4,465 |
| Engineering, total | 33,409 | 34,326 | 35,211 | 34,512 | 33,225 | 31,293 | 30,316 | 29,901 |
| Aerospace engineering | 952 | 879 | 837 | 814 | 798 | 745 | 773 | 751 |
| Agricultural engineering | 48 | 40 | 41 | 48 | 55 | 56 | 53 | 48 |
| Biomedical engineering | 852 | 922 | 1,002 | 1,036 | 1,109 | 1,076 | 1,032 | 1,003 |
| Chemical engineering | 1,890 | 1,961 | 1,984 | 1,984 | 2,016 | 1,984 | 2,025 | 2,074 |
| Civil engineering | 3,854 | 4,262 | 4,820 | 4,840 | 4,977 | 4,684 | 4,437 | 3,993 |
| Electrical engineering | 12,580 | 12,707 | 12,850 | 12,248 | 11,107 | 10,111 | 10,213 | 10,491 |
| Engineering science | 794 | 787 | 748 | 748 | 721 | 661 | 499 | 525 |
| Industrial/manufacturing eng. | 4,074 | 4,286 | 4,430 | 4,368 | 4,468 | 4,550 | 4,294 | 4,145 |
| Mechanical engineering | 5,054 | 4,961 | 4,981 | 4,988 | 4,769 | 4,219 | 3,914 | 3,878 |
| Metallurgical/materials eng. | 1,747 | 1,699 | 1,743 | 1,622 | 1,524 | 1,466 | 1,400 | 1,380 |
| Nuclear engineering | 205 | 189 | 205 | 212 | 184 | 179 | 154 | 117 |
| Engineering, other | 1,359 | 1,633 | 1,570 | 1,604 | 1,497 | 1,562 | 1,522 | 1,496 |
| Total, health fields | 14,200 | 15,390 | 16,776 | 18,909 | 20,166 | 21,596 | 21,382 | 21,808 |
| Clinical fields | 617 | 896 | 1,088 | 1,227 | 1,268 | 1,277 | 1,193 | 1,365 |
| Dental sciences | 210 | 225 | 281 | 273 | 280 | 326 | 299 | 321 |
| Nursing | 5,195 | 5,303 | 5,524 | 5,687 | 5,765 | 6,289 | 5,883 | 5,724 |
| Pharmaceutical sciences | 671 | 725 | 546 | 522 | 566 | 563 | 546 | 562 |
| Preventive medicine/community health | 2,526 | 2,496 | 2,658 | 3,116 | 3,530 | 3,604 | 3,408 | 3,404 |
| Speech pathology/audiology | 1,192 | 1,310 | 1,564 | 1,940 | 2,050 | 2,174 | 2,195 | 2,257 |
| Veterinary sciences | 79 | 73 | 62 | 75 | 68 | 54 | 52 | 52 |
| Other health fields | 3,710 | 4,362 | 5,053 | 6,069 | 6,639 | 7,309 | 7,806 | 8,123 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 16. Graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

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| Carnegie classification and field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| All institutions: | | | | | | | | |
| Total, science and engineering fields | 397,135 | 412,697 | 430,644 | 435,886 | 431,251 | 422,555 | 415,363 | 407,644 |
| Sciences, total | 289,510 | 299,121 | 312,609 | 319,028 | 318,228 | 315,356 | 312,140 | 306,636 |
| Physical sciences | 34,075 | 34,710 | 35,348 | 35,318 | 34,449 | 33,417 | 32,355 | 31,108 |
| Earth, atmospheric, & ocean sciences | 13,984 | 14,480 | 15,347 | 15,805 | 16,042 | 15,805 | 15,280 | 14,644 |
| Mathematical sciences | 19,774 | 19,952 | 20,355 | 20,000 | 19,579 | 18,509 | 18,015 | 16,759 |
| Computer sciences | 34,257 | 34,610 | 36,293 | 36,189 | 34,128 | 33,432 | 34,592 | 36,010 |
| Agricultural sciences | 11,316 | 11,506 | 11,827 | 11,914 | 12,199 | 12,367 | 11,914 | 11,810 |
| Biological sciences | 49,989 | 51,778 | 54,177 | 56,452 | 58,143 | 58,736 | 58,128 | 57,135 |
| Psychology | 48,167 | 51,343 | 53,484 | 54,557 | 54,554 | 53,641 | 53,209 | 53,142 |
| Social sciences | 77,948 | 80,742 | 85,778 | 88,793 | 89,134 | 89,449 | 88,647 | 86,028 |
| Engineering, total | 107,625 | 113,576 | 118,035 | 116,858 | 113,023 | 107,199 | 103,223 | 101,008 |
| Research I: | | | | | | | | |
| Total, science and engineering fields | 139,029 | 141,656 | 146,176 | 147,642 | 146,308 | 143,285 | 139,670 | 136,778 |
| Sciences, total | 98,415 | 99,622 | 102,709 | 104,369 | 104,485 | 103,392 | 101,437 | 98,488 |
| Physical sciences | 15,201 | 15,152 | 15,323 | 15,380 | 14,984 | 14,524 | 14,028 | 13,525 |
| Earth, atmospheric, & ocean sciences | 4,901 | 4,902 | 5,096 | 5,135 | 5,183 | 5,171 | 4,939 | 4,658 |
| Mathematical sciences | 6,955 | 7,032 | 7,229 | 7,041 | 6,887 | 6,672 | 6,539 | 6,031 |
| Computer sciences | 7,716 | 7,804 | 7,980 | 8,191 | 7,936 | 7,808 | 7,865 | 7,901 |
| Agricultural sciences | 5,203 | 5,226 | 5,186 | 5,225 | 5,302 | 5,418 | 5,272 | 5,264 |
| Biological sciences | 21,932 | 22,398 | 23,079 | 24,089 | 24,766 | 24,797 | 24,430 | 24,012 |
| Psychology | 7,628 | 7,753 | 8,061 | 8,076 | 7,922 | 7,817 | 7,760 | 7,530 |
| Social sciences | 28,879 | 29,355 | 30,755 | 31,232 | 31,505 | 31,185 | 30,604 | 29,567 |
| Engineering, total | 40,614 | 42,034 | 43,467 | 43,273 | 41,823 | 39,893 | 38,233 | 38,290 |
| Research II: | | | | | | | | |
| Total, science and engineering fields | 33,811 | 36,402 | 38,430 | 38,681 | 37,353 | 36,171 | 35,187 | 34,339 |
| Sciences, total | 22,956 | 24,288 | 25,746 | 26,083 | 25,491 | 24,971 | 24,683 | 23,902 |
| Physical sciences | 3,150 | 3,280 | 3,407 | 3,385 | 3,287 | 3,168 | 3,046 | 2,912 |
| Earth, atmospheric, & ocean sciences | 1,346 | 1,323 | 1,418 | 1,459 | 1,492 | 1,442 | 1,363 | 1,284 |
| Mathematical sciences | 1,863 | 1,986 | 1,962 | 1,868 | 1,783 | 1,628 | 1,520 | 1,357 |
| Computer sciences | 2,124 | 2,290 | 2,752 | 2,728 | 2,595 | 2,443 | 2,697 | 2,281 |
| Agricultural sciences | 1,539 | 1,601 | 1,775 | 1,775 | 1,811 | 1,848 | 1,705 | 1,747 |
| Biological sciences | 3,737 | 3,907 | 3,956 | 4,042 | 4,050 | 4,097 | 3,941 | 4,091 |
| Psychology | 2,759 | 3,050 | 3,246 | 3,180 | 2,995 | 3,023 | 2,892 | 2,801 |
| Social sciences | 6,438 | 6,851 | 7,230 | 7,646 | 7,478 | 7,322 | 7,519 | 7,429 |
| Engineering, total | 10,855 | 12,114 | 12,684 | 12,598 | 11,862 | 11,200 | 10,504 | 10,437 |
| Doctorate-granting: | | | | | | | | |
| Total, science and engineering fields | 66,849 | 68,590 | 71,623 | 73,132 | 73,383 | 71,028 | 71,448 | 71,916 |
| Sciences, total | 50,059 | 50,788 | 53,582 | 54,969 | 55,554 | 54,634 | 54,898 | 55,601 |
| Physical sciences | 4,742 | 4,800 | 4,923 | 4,879 | 4,877 | 4,689 | 4,713 | 4,491 |
| Earth, atmospheric, & ocean sciences | 2,103 | 2,317 | 2,492 | 2,502 | 2,599 | 2,580 | 2,521 | 2,256 |
| Mathematical sciences | 3,389 | 3,464 | 3,574 | 3,524 | 3,480 | 3,160 | 3,134 | 2,991 |
| Computer sciences | 10,047 | 9,474 | 9,925 | 10,191 | 9,871 | 9,755 | 9,937 | 11,120 |
| Agricultural sciences | 509 | 485 | 576 | 552 | 671 | 678 | 668 | 598 |
| Biological sciences | 5,001 | 5,299 | 5,594 | 5,793 | 5,954 | 6,087 | 6,194 | 6,127 |
| Psychology | 11,163 | 11,303 | 11,765 | 11,855 | 12,164 | 11,764 | 11,618 | 12,229 |
| Social sciences | 13,105 | 13,646 | 14,733 | 15,673 | 15,938 | 15,921 | 16,113 | 15,789 |
| Engineering, total | 16,790 | 17,802 | 18,041 | 18,163 | 17,829 | 16,394 | 16,550 | 16,315 |

See explanatory information, if any, and SOURCE at end of table.

**Table 16. Graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

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| Carnegie classification and field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Comprehensive: | | | | | | | | |
| Total, science and engineering fields | 53,642 | 57,076 | 60,106 | 61,213 | 59,803 | 59,351 | 58,408 | 58,409 |
| Sciences, total | 43,781 | 46,388 | 48,657 | 50,445 | 49,734 | 49,848 | 49,375 | 49,674 |
| Physical sciences | 2,169 | 2,329 | 2,292 | 2,396 | 2,318 | 2,282 | 2,115 | 2,032 |
| Earth, atmospheric, & ocean sciences | 1,290 | 1,481 | 1,718 | 1,925 | 1,982 | 2,032 | 2,008 | 2,129 |
| Mathematical sciences | 3,079 | 2,961 | 2,934 | 2,969 | 2,857 | 2,677 | 2,624 | 2,442 |
| Computer sciences | 7,129 | 7,675 | 8,013 | 7,578 | 6,682 | 6,565 | 6,919 | 7,771 |
| Agricultural sciences | 934 | 965 | 973 | 1,017 | 966 | 1,022 | 1,006 | 1,167 |
| Biological sciences | 4,588 | 4,706 | 5,043 | 5,629 | 5,714 | 6,058 | 5,830 | 5,651 |
| Psychology | 12,943 | 14,172 | 14,890 | 15,731 | 15,744 | 15,497 | 15,521 | 15,074 |
| Social sciences | 11,649 | 12,099 | 12,794 | 13,200 | 13,471 | 13,715 | 13,352 | 13,408 |
| Engineering, total | 9,861 | 10,688 | 11,449 | 10,768 | 10,069 | 9,503 | 9,033 | 8,735 |
| Engineering: | | | | | | | | |
| Total, science and engineering fields | 1,777 | 2,026 | 2,178 | 2,196 | 2,230 | 2,337 | 2,137 | 2,201 |
| Sciences, total | 527 | 569 | 615 | 633 | 586 | 578 | 540 | 538 |
| Physical sciences | 95 | 113 | 118 | 123 | 111 | 106 | 105 | 101 |
| Earth, atmospheric, & ocean sciences | 184 | 164 | 180 | 194 | 181 | 166 | 160 | 166 |
| Mathematical sciences | 11 | 17 | 14 | 18 | 11 | 8 | 9 | 4 |
| Computer sciences | 226 | 267 | 293 | 292 | 275 | 284 | 250 | 256 |
| Agricultural sciences | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Biological sciences | 11 | 8 | 10 | 6 | 8 | 13 | 16 | 11 |
| Psychology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Social sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Engineering, total | 1,250 | 1,457 | 1,563 | 1,563 | 1,644 | 1,759 | 1,597 | 1,663 |
| Liberal arts: | | | | | | | | |
| Total, science and engineering fields | 1,847 | 2,326 | 2,409 | 2,305 | 2,307 | 2,151 | 2,038 | 1,889 |
| Sciences, total | 1,690 | 2,102 | 2,173 | 2,097 | 2,126 | 1,986 | 1,893 | 1,769 |
| Physical sciences | 105 | 117 | 119 | 115 | 110 | 102 | 101 | 109 |
| Earth, atmospheric, & ocean sciences | 93 | 144 | 162 | 157 | 160 | 143 | 142 | 155 |
| Mathematical sciences | 32 | 33 | 36 | 36 | 37 | 30 | 30 | 21 |
| Computer sciences | 65 | 56 | 55 | 39 | 26 | 23 | 23 | 18 |
| Agricultural sciences | 67 | 95 | 86 | 71 | 68 | 60 | 47 | 39 |
| Biological sciences | 123 | 133 | 133 | 135 | 135 | 128 | 133 | 129 |
| Psychology | 1,085 | 1,422 | 1,442 | 1,417 | 1,450 | 1,382 | 1,298 | 1,198 |
| Social sciences | 120 | 102 | 140 | 127 | 140 | 118 | 119 | 100 |
| Engineering, total | 157 | 224 | 236 | 208 | 181 | 165 | 145 | 120 |
| Other: | | | | | | | | |
| Total, science and engineering fields | 100,180 | 104,621 | 109,722 | 110,717 | 109,867 | 108,232 | 106,475 | 102,112 |
| Sciences, total | 72,082 | 75,364 | 79,127 | 80,432 | 80,252 | 79,947 | 79,314 | 76,664 |
| Physical sciences | 8,613 | 8,919 | 9,166 | 9,040 | 8,762 | 8,546 | 8,247 | 7,938 |
| Earth, atmospheric, & ocean sciences | 4,067 | 4,149 | 4,281 | 4,433 | 4,445 | 4,271 | 4,147 | 3,996 |
| Mathematical sciences | 4,445 | 4,459 | 4,606 | 4,544 | 4,524 | 4,334 | 4,159 | 3,913 |
| Computer sciences | 6,950 | 7,044 | 7,275 | 7,170 | 6,743 | 6,554 | 6,901 | 6,663 |
| Agricultural sciences | 3,064 | 3,134 | 3,231 | 3,274 | 3,381 | 3,340 | 3,216 | 2,995 |
| Biological sciences | 14,597 | 15,327 | 16,362 | 16,758 | 17,516 | 17,556 | 17,584 | 17,114 |
| Psychology | 12,589 | 13,643 | 14,080 | 14,298 | 14,279 | 14,158 | 14,120 | 14,310 |
| Social sciences | 17,757 | 18,689 | 20,126 | 20,915 | 20,602 | 21,188 | 20,940 | 19,735 |
| Engineering, total | 28,098 | 29,257 | 30,595 | 30,285 | 29,615 | 28,285 | 27,161 | 25,448 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 17. Full-time graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 292,830 | 307,040 | 322,609 | 329,679 | 332,129 | 329,148 | 328,453 | 326,842 |
| Total, science and engineering fields | 265,399 | 277,174 | 290,510 | 294,030 | 293,048 | 287,253 | 284,194 | 280,612 |
| Sciences, total | 199,422 | 206,140 | 216,084 | 220,233 | 221,482 | 219,479 | 218,343 | 215,018 |
| Physical sciences, total | 29,485 | 30,117 | 30,673 | 30,611 | 30,043 | 28,902 | 27,956 | 26,892 |
| Astronomy | 790 | 810 | 840 | 848 | 953 | 871 | 854 | 768 |
| Chemistry | 16,382 | 16,731 | 16,999 | 17,204 | 17,104 | 16,762 | 16,506 | 16,019 |
| Physics | 12,191 | 12,442 | 12,689 | 12,397 | 11,766 | 11,052 | 10,400 | 9,923 |
| Physical sciences, n.e.c. | 122 | 134 | 145 | 162 | 220 | 217 | 196 | 182 |
| Earth, atmos., & ocean sci., total | 10,244 | 10,373 | 10,986 | 11,367 | 11,470 | 11,275 | 10,826 | 10,550 |
| Atmospheric sciences | 828 | 859 | 959 | 980 | 993 | 959 | 980 | 966 |
| Geosciences | 5,799 | 5,688 | 5,885 | 5,970 | 5,946 | 5,796 | 5,579 | 5,432 |
| Oceanography | 1,934 | 1,991 | 2,133 | 2,177 | 2,333 | 2,228 | 2,074 | 1,971 |
| Earth, atmos., & ocean sci., n.e.c. | 1,683 | 1,835 | 2,009 | 2,240 | 2,198 | 2,292 | 2,193 | 2,181 |
| Mathematical sciences | 13,865 | 14,256 | 14,679 | 14,530 | 14,226 | 13,410 | 12,966 | 12,153 |
| Computer sciences | 16,689 | 16,516 | 17,486 | 17,374 | 16,674 | 16,490 | 17,173 | 18,320 |
| Agricultural sciences | 9,100 | 9,289 | 9,452 | 9,468 | 9,492 | 9,620 | 9,298 | 9,110 |
| Biological sciences, total | 40,945 | 42,700 | 44,389 | 46,481 | 48,017 | 48,330 | 47,744 | 46,998 |
| Anatomy | 911 | 961 | 960 | 977 | 983 | 978 | 1,042 | 1,033 |
| Biochemistry | 4,825 | 4,954 | 5,045 | 5,174 | 5,222 | 5,203 | 4,971 | 4,805 |
| Biology | 9,149 | 9,439 | 9,678 | 10,028 | 10,086 | 9,973 | 10,043 | 10,299 |
| Biometry/epidemiology | 1,231 | 1,431 | 1,634 | 1,990 | 2,056 | 2,093 | 2,162 | 2,005 |
| Biophysics | 605 | 679 | 728 | 755 | 770 | 800 | 807 | 728 |
| Botany | 2,354 | 2,304 | 2,301 | 2,353 | 2,349 | 2,149 | 2,130 | 2,051 |
| Cell biology | 2,485 | 2,716 | 2,961 | 3,189 | 3,596 | 3,694 | 3,670 | 3,663 |
| Ecology | 884 | 919 | 997 | 1,057 | 1,203 | 1,304 | 1,243 | 1,200 |
| Entomology/parasitology | 997 | 1,014 | 1,016 | 1,039 | 1,066 | 1,041 | 1,027 | 995 |
| Genetics | 1,297 | 1,412 | 1,526 | 1,690 | 1,602 | 1,619 | 1,653 | 1,666 |
| Microbio., immunology, & virology | 4,372 | 4,408 | 4,460 | 4,607 | 4,705 | 4,673 | 4,537 | 4,416 |
| Nutrition | 2,829 | 2,878 | 2,863 | 3,045 | 3,221 | 3,431 | 3,482 | 3,289 |
| Pathology | 1,083 | 1,113 | 1,165 | 1,296 | 1,389 | 1,382 | 1,355 | 1,420 |
| Pharmacology | 2,222 | 2,304 | 2,397 | 2,500 | 2,672 | 2,529 | 2,499 | 2,446 |
| Physiology | 2,076 | 2,163 | 2,160 | 2,220 | 2,221 | 2,376 | 2,217 | 2,103 |
| Zoology | 1,677 | 1,782 | 1,789 | 1,747 | 1,717 | 1,746 | 1,628 | 1,520 |
| Biosciences, n.e.c. | 1,948 | 2,223 | 2,709 | 2,814 | 3,159 | 3,339 | 3,278 | 3,359 |
| Psychology | 30,618 | 32,258 | 34,162 | 34,782 | 35,288 | 35,222 | 35,468 | 35,522 |
| Social sciences, total | 48,476 | 50,631 | 54,257 | 55,620 | 56,272 | 56,230 | 56,912 | 55,473 |
| Agricultural economics | 1,961 | 2,011 | 2,105 | 1,963 | 1,936 | 1,977 | 1,784 | 1,718 |
| Anthropology (cultural & social) | 4,809 | 5,079 | 5,337 | 5,429 | 5,837 | 5,792 | 6,003 | 5,797 |
| Economics (except agricultural) | 9,293 | 9,850 | 10,184 | 10,107 | 9,945 | 9,743 | 9,548 | 8,792 |
| Geography | 2,374 | 2,539 | 2,801 | 3,026 | 3,119 | 2,962 | 2,959 | 2,967 |
| Linguistics | 2,586 | 2,549 | 2,477 | 2,538 | 2,518 | 2,486 | 2,530 | 2,360 |
| Political science | 15,325 | 16,083 | 17,667 | 18,372 | 17,918 | 17,630 | 17,669 | 17,053 |
| Sociology | 5,714 | 5,949 | 6,469 | 6,625 | 6,720 | 6,692 | 6,610 | 6,727 |
| Sociology/anthropology | 744 | 624 | 651 | 639 | 693 | 663 | 620 | 666 |
| Social sciences, other | 5,670 | 5,947 | 6,566 | 6,921 | 7,586 | 8,285 | 9,189 | 9,393 |
| Engineering, total | 65,977 | 71,034 | 74,426 | 73,797 | 71,566 | 67,774 | 65,851 | 65,594 |
| Aerospace engineering | 3,010 | 3,325 | 3,306 | 3,262 | 3,000 | 2,693 | 2,576 | 2,529 |
| Agricultural engineering | 799 | 823 | 840 | 835 | 879 | 859 | 799 | 748 |
| Biomedical engineering | 1,798 | 1,925 | 2,167 | 2,269 | 2,292 | 2,315 | 2,316 | 2,462 |
| Chemical engineering | 5,443 | 5,788 | 5,946 | 6,041 | 6,105 | 5,957 | 5,909 | 5,784 |
| Civil engineering | 10,128 | 11,328 | 12,454 | 12,458 | 12,641 | 12,248 | 11,791 | 11,259 |
| Electrical engineering | 18,675 | 19,904 | 20,996 | 20,370 | 19,412 | 18,187 | 17,989 | 18,926 |
| Engineering science | 1,252 | 1,364 | 1,415 | 1,397 | 1,347 | 1,243 | 1,057 | 1,018 |
| Industrial/manufacturing eng. | 4,770 | 5,598 | 6,081 | 5,902 | 5,910 | 5,342 | 5,128 | 5,071 |
| Mechanical engineering | 10,867 | 11,687 | 12,383 | 12,395 | 11,875 | 11,128 | 10,690 | 10,432 |
| Metallurgical/materials eng. | 3,930 | 4,058 | 4,274 | 4,249 | 4,108 | 3,880 | 3,693 | 3,661 |
| Nuclear engineering | 1,080 | 1,080 | 1,084 | 1,070 | 997 | 883 | 771 | 708 |
| Engineering, other | 4,225 | 4,154 | 3,480 | 3,549 | 3,000 | 3,039 | 3,132 | 2,996 |
| Total, health fields | 27,431 | 29,866 | 32,099 | 35,649 | 39,081 | 41,895 | 44,259 | 46,230 |
| Clinical fields | 1,557 | 1,811 | 2,038 | 2,217 | 2,374 | 2,347 | 2,395 | 2,732 |
| Dental sciences | 827 | 875 | 988 | 1,005 | 1,048 | 1,096 | 1,116 | 1,235 |
| Nursing | 6,148 | 6,475 | 6,422 | 6,875 | 7,914 | 8,561 | 8,653 | 9,029 |
| Pharmaceutical sciences | 2,148 | 2,198 | 2,074 | 2,133 | 2,188 | 2,152 | 2,226 | 2,238 |
| Preventive medicine/community health | 4,510 | 4,419 | 4,789 | 5,334 | 5,425 | 5,904 | 5,782 | 5,634 |
| Speech pathology/audiology | 5,767 | 6,499 | 7,144 | 8,109 | 8,707 | 9,064 | 9,649 | 9,907 |
| Veterinary sciences | 709 | 717 | 754 | 693 | 696 | 733 | 736 | 985 |
| Other health fields | 5,765 | 6,872 | 7,890 | 9,283 | 10,729 | 12,038 | 13,702 | 14,470 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 18. Male full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990-97

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 186,724 | 193,540 | 200,824 | 200,790 | 197,428 | 191,201 | 187,133 | 183,207 |
| Total, science and engineering fields | 178,695 | 185,090 | 191,791 | 190,864 | 186,675 | 179,834 | 174,783 | 170,126 |
| Sciences, total | 121,416 | 123,739 | 128,029 | 128,266 | 126,686 | 123,556 | 120,758 | 117,037 |
| Physical sciences, total | 22,664 | 22,845 | 23,173 | 22,888 | 22,277 | 21,238 | 20,413 | 19,458 |
| Astronomy | 629 | 641 | 659 | 658 | 732 | 657 | 630 | 564 |
| Chemistry | 11,420 | 11,404 | 11,482 | 11,465 | 11,309 | 11,022 | 10,837 | 10,402 |
| Physics | 10,546 | 10,727 | 10,945 | 10,658 | 10,093 | 9,431 | 8,839 | 8,386 |
| Physical sciences, n.e.c. | 69 | 73 | 87 | 107 | 143 | 128 | 107 | 106 |
| Earth, atmos., & ocean sci., total | 7,317 | 7,197 | 7,588 | 7,815 | 7,676 | 7,387 | 6,955 | 6,676 |
| Atmospheric sciences | 653 | 682 | 760 | 783 | 775 | 742 | 773 | 729 |
| Geosciences | 4,377 | 4,154 | 4,296 | 4,338 | 4,174 | 4,000 | 3,780 | 3,627 |
| Oceanography | 1,294 | 1,306 | 1,357 | 1,385 | 1,476 | 1,360 | 1,235 | 1,150 |
| Earth, atmos., & ocean sci., n.e.c. | 993 | 1,055 | 1,175 | 1,309 | 1,251 | 1,285 | 1,167 | 1,170 |
| Mathematical sciences | 9,821 | 10,035 | 10,250 | 10,096 | 9,810 | 9,213 | 8,797 | 8,179 |
| Computer sciences | 13,218 | 13,035 | 13,936 | 13,791 | 13,127 | 12,840 | 13,088 | 13,525 |
| Agricultural sciences | 6,454 | 6,424 | 6,454 | 6,281 | 6,166 | 6,158 | 5,847 | 5,598 |
| Biological sciences, total | 22,789 | 23,498 | 24,230 | 24,920 | 25,493 | 25,297 | 24,737 | 24,031 |
| Anatomy | 500 | 507 | 509 | 517 | 507 | 513 | 557 | 544 |
| Biochemistry | 2,852 | 2,923 | 2,979 | 2,979 | 3,020 | 2,952 | 2,826 | 2,763 |
| Biology | 5,195 | 5,202 | 5,253 | 5,421 | 5,479 | 5,315 | 5,317 | 5,302 |
| Biometry/epidemiology | 593 | 649 | 727 | 887 | 882 | 872 | 884 | 784 |
| Biophysics | 452 | 498 | 528 | 533 | 554 | 568 | 567 | 517 |
| Botany | 1,439 | 1,396 | 1,397 | 1,409 | 1,354 | 1,202 | 1,164 | 1,084 |
| Cell biology | 1,394 | 1,480 | 1,625 | 1,714 | 1,949 | 2,002 | 1,969 | 1,999 |
| Ecology | 538 | 531 | 557 | 565 | 641 | 705 | 662 | 625 |
| Entomology/parasitology | 694 | 720 | 714 | 709 | 710 | 698 | 680 | 636 |
| Genetics | 631 | 711 | 744 | 811 | 748 | 789 | 799 | 774 |
| Microbio., immunology, & virology | 2,314 | 2,339 | 2,363 | 2,388 | 2,443 | 2,419 | 2,325 | 2,241 |
| Nutrition | 950 | 991 | 949 | 1,004 | 986 | 1,012 | 1,015 | 876 |
| Pathology | 641 | 666 | 656 | 707 | 773 | 751 | 704 | 727 |
| Pharmacology | 1,249 | 1,230 | 1,278 | 1,327 | 1,400 | 1,308 | 1,282 | 1,287 |
| Physiology | 1,226 | 1,288 | 1,295 | 1,326 | 1,319 | 1,394 | 1,314 | 1,244 |
| Zoology | 1,003 | 1,070 | 1,101 | 1,037 | 987 | 1,014 | 920 | 855 |
| Biosciences, n.e.c. | 1,118 | 1,297 | 1,555 | 1,586 | 1,741 | 1,783 | 1,752 | 1,773 |
| Psychology | 10,642 | 10,957 | 11,171 | 11,189 | 11,131 | 10,903 | 10,794 | 10,811 |
| Social sciences, total | 28,511 | 29,748 | 31,227 | 31,286 | 31,006 | 30,520 | 30,127 | 28,759 |
| Agricultural economics | 1,442 | 1,477 | 1,512 | 1,358 | 1,302 | 1,314 | 1,195 | 1,135 |
| Anthropology (cultural & social) | 2,054 | 2,123 | 2,193 | 2,258 | 2,384 | 2,434 | 2,435 | 2,367 |
| Economics (except agricultural) | 6,843 | 7,175 | 7,343 | 7,253 | 7,091 | 6,844 | 6,640 | 6,051 |
| Geography | 1,585 | 1,667 | 1,851 | 1,966 | 2,028 | 1,869 | 1,878 | 1,828 |
| Linguistics | 1,142 | 1,151 | 1,025 | 1,053 | 997 | 981 | 943 | 827 |
| Political science | 9,259 | 9,724 | 10,444 | 10,595 | 10,226 | 9,889 | 9,755 | 9,270 |
| Sociology | 2,664 | 2,809 | 2,912 | 2,766 | 2,715 | 2,719 | 2,689 | 2,671 |
| Sociology/anthropology | 310 | 291 | 287 | 308 | 278 | 269 | 258 | 263 |
| Social sciences, other | 3,212 | 3,331 | 3,660 | 3,729 | 3,985 | 4,201 | 4,334 | 4,347 |
| Engineering, total | 57,279 | 61,351 | 63,762 | 62,598 | 59,989 | 56,278 | 54,025 | 53,089 |
| Aerospace engineering | 2,811 | 3,071 | 3,043 | 2,971 | 2,722 | 2,417 | 2,293 | 2,226 |
| Agricultural engineering | 717 | 715 | 714 | 709 | 704 | 679 | 619 | 560 |
| Biomedical engineering | 1,338 | 1,422 | 1,640 | 1,685 | 1,703 | 1,689 | 1,678 | 1,733 |
| Chemical engineering | 4,547 | 4,803 | 4,849 | 4,875 | 4,912 | 4,734 | 4,594 | 4,425 |
| Civil engineering | 8,347 | 9,309 | 10,126 | 9,934 | 9,855 | 9,431 | 8,937 | 8,353 |
| Electrical engineering | 16,719 | 17,739 | 18,570 | 17,926 | 17,021 | 15,747 | 15,441 | 16,096 |
| Engineering science | 1,075 | 1,182 | 1,230 | 1,195 | 1,145 | 1,061 | 883 | 843 |
| Industrial/manufacturing eng. | 3,862 | 4,556 | 4,906 | 4,729 | 4,612 | 4,191 | 4,037 | 3,973 |
| Mechanical engineering | 10,019 | 10,745 | 11,297 | 11,210 | 10,658 | 9,993 | 9,500 | 9,143 |
| Metallurgical/materials eng. | 3,238 | 3,316 | 3,467 | 3,447 | 3,268 | 3,064 | 2,878 | 2,806 |
| Nuclear engineering | 952 | 935 | 935 | 926 | 880 | 776 | 649 | 586 |
| Engineering, other | 3,654 | 3,558 | 2,985 | 2,991 | 2,509 | 2,496 | 2,516 | 2,345 |
| Total, health fields | 8,029 | 8,450 | 9,033 | 9,926 | 10,753 | 11,367 | 12,350 | 13,081 |
| Clinical fields | 885 | 995 | 1,040 | 1,110 | 1,126 | 1,111 | 1,156 | 1,331 |
| Dental sciences | 590 | 623 | 684 | 702 | 723 | 726 | 722 | 765 |
| Nursing | 403 | 468 | 464 | 546 | 609 | 707 | 786 | 899 |
| Pharmaceutical sciences | 1,317 | 1,303 | 1,213 | 1,201 | 1,221 | 1,192 | 1,223 | 1,169 |
| Preventive medicine/community health | 1,874 | 1,778 | 1,886 | 2,114 | 2,153 | 2,248 | 2,281 | 2,218 |
| Speech pathology/audiology | 523 | 506 | 578 | 665 | 690 | 695 | 746 | 785 |
| Veterinary sciences | 415 | 436 | 439 | 372 | 369 | 378 | 384 | 484 |
| Other health fields | 2,022 | 2,341 | 2,729 | 3,216 | 3,862 | 4,310 | 5,052 | 5,430 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 19. Female full-time graduate students in science, engineering, and health fields
in all institutions, by detailed field: 1990-97**

Page 1 of 1

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 106,106 | 113,500 | 121,785 | 128,889 | 134,701 | 137,947 | 141,320 | 143,635 |
| Total, science and engineering fields | 86,704 | 92,084 | 98,719 | 103,166 | 106,373 | 107,419 | 109,411 | 110,486 |
| Sciences, total | 78,006 | 82,401 | 88,055 | 91,967 | 94,796 | 95,923 | 97,585 | 97,981 |
| Physical sciences, total | 6,821 | 7,272 | 7,500 | 7,723 | 7,766 | 7,664 | 7,543 | 7,434 |
| Astronomy | 161 | 169 | 181 | 190 | 221 | 214 | 224 | 204 |
| Chemistry | 4,962 | 5,327 | 5,517 | 5,739 | 5,795 | 5,740 | 5,669 | 5,617 |
| Physics | 1,645 | 1,715 | 1,744 | 1,739 | 1,673 | 1,621 | 1,561 | 1,537 |
| Physical sciences, n.e.c. | 53 | 61 | 58 | 55 | 77 | 89 | 89 | 76 |
| Earth, atmos., & ocean sci., total | 2,927 | 3,176 | 3,398 | 3,552 | 3,794 | 3,888 | 3,871 | 3,874 |
| Atmospheric sciences | 175 | 177 | 199 | 197 | 218 | 217 | 207 | 237 |
| Geosciences | 1,422 | 1,534 | 1,589 | 1,632 | 1,772 | 1,796 | 1,799 | 1,805 |
| Oceanography | 640 | 685 | 776 | 792 | 857 | 868 | 839 | 821 |
| Earth, atmos., & ocean sci., n.e.c. | 690 | 780 | 834 | 931 | 947 | 1,007 | 1,026 | 1,011 |
| Mathematical sciences | 4,044 | 4,221 | 4,429 | 4,434 | 4,416 | 4,197 | 4,169 | 3,974 |
| Computer sciences | 3,471 | 3,481 | 3,550 | 3,583 | 3,547 | 3,650 | 4,085 | 4,795 |
| Agricultural sciences | 2,646 | 2,865 | 2,998 | 3,187 | 3,326 | 3,462 | 3,451 | 3,512 |
| Biological sciences, total | 18,156 | 19,202 | 20,159 | 21,561 | 22,524 | 23,033 | 23,007 | 22,967 |
| Anatomy | 411 | 454 | 451 | 460 | 476 | 465 | 485 | 489 |
| Biochemistry | 1,973 | 2,031 | 2,066 | 2,195 | 2,202 | 2,251 | 2,145 | 2,042 |
| Biology | 3,954 | 4,237 | 4,425 | 4,607 | 4,607 | 4,658 | 4,726 | 4,997 |
| Biometry/epidemiology | 638 | 782 | 907 | 1,103 | 1,174 | 1,221 | 1,278 | 1,221 |
| Biophysics | 153 | 181 | 200 | 222 | 216 | 232 | 240 | 211 |
| Botany | 915 | 908 | 904 | 944 | 995 | 947 | 966 | 967 |
| Cell biology | 1,091 | 1,236 | 1,336 | 1,475 | 1,647 | 1,692 | 1,701 | 1,664 |
| Ecology | 346 | 388 | 440 | 492 | 562 | 599 | 581 | 575 |
| Entomology/parasitology | 303 | 294 | 302 | 330 | 356 | 343 | 347 | 359 |
| Genetics | 666 | 701 | 782 | 879 | 854 | 830 | 854 | 892 |
| Microbio., immunology, & virology | 2,058 | 2,069 | 2,097 | 2,219 | 2,262 | 2,254 | 2,212 | 2,175 |
| Nutrition | 1,879 | 1,887 | 1,914 | 2,041 | 2,235 | 2,419 | 2,467 | 2,413 |
| Pathology | 442 | 447 | 509 | 589 | 616 | 631 | 651 | 693 |
| Pharmacology | 973 | 1,074 | 1,119 | 1,173 | 1,272 | 1,221 | 1,217 | 1,159 |
| Physiology | 850 | 875 | 865 | 894 | 902 | 982 | 903 | 859 |
| Zoology | 674 | 712 | 688 | 710 | 730 | 732 | 708 | 665 |
| Biosciences, n.e.c. | 830 | 926 | 1,154 | 1,228 | 1,418 | 1,556 | 1,526 | 1,586 |
| Psychology | 19,976 | 21,301 | 22,991 | 23,593 | 24,157 | 24,319 | 24,674 | 24,711 |
| Social sciences, total | 19,965 | 20,883 | 23,030 | 24,334 | 25,266 | 25,710 | 26,785 | 26,714 |
| Agricultural economics | 519 | 534 | 593 | 605 | 634 | 663 | 589 | 583 |
| Anthropology (cultural & social) | 2,755 | 2,956 | 3,144 | 3,171 | 3,453 | 3,358 | 3,568 | 3,430 |
| Economics (except agricultural) | 2,450 | 2,675 | 2,841 | 2,854 | 2,854 | 2,899 | 2,908 | 2,741 |
| Geography | 789 | 872 | 950 | 1,060 | 1,091 | 1,093 | 1,081 | 1,139 |
| Linguistics | 1,444 | 1,398 | 1,452 | 1,485 | 1,521 | 1,505 | 1,587 | 1,533 |
| Political science | 6,066 | 6,359 | 7,223 | 7,777 | 7,692 | 7,741 | 7,914 | 7,783 |
| Sociology | 3,050 | 3,140 | 3,557 | 3,859 | 4,005 | 3,973 | 3,921 | 4,056 |
| Sociology/anthropology | 434 | 333 | 364 | 331 | 415 | 394 | 362 | 403 |
| Social sciences, other | 2,458 | 2,616 | 2,906 | 3,192 | 3,601 | 4,084 | 4,855 | 5,046 |
| Engineering, total | 8,698 | 9,683 | 10,664 | 11,199 | 11,577 | 11,496 | 11,826 | 12,505 |
| Aerospace engineering | 199 | 254 | 263 | 291 | 278 | 276 | 283 | 303 |
| Agricultural engineering | 82 | 108 | 126 | 126 | 175 | 180 | 180 | 188 |
| Biomedical engineering | 460 | 503 | 527 | 584 | 589 | 626 | 638 | 729 |
| Chemical engineering | 896 | 985 | 1,097 | 1,166 | 1,193 | 1,223 | 1,315 | 1,359 |
| Civil engineering | 1,781 | 2,019 | 2,328 | 2,524 | 2,786 | 2,817 | 2,854 | 2,906 |
| Electrical engineering | 1,956 | 2,165 | 2,426 | 2,444 | 2,391 | 2,440 | 2,548 | 2,830 |
| Engineering science | 177 | 182 | 185 | 202 | 202 | 182 | 174 | 175 |
| Industrial/manufacturing eng. | 908 | 1,042 | 1,175 | 1,173 | 1,298 | 1,151 | 1,091 | 1,098 |
| Mechanical engineering | 848 | 942 | 1,086 | 1,185 | 1,217 | 1,135 | 1,190 | 1,289 |
| Metallurgical/materials eng. | 692 | 742 | 807 | 802 | 840 | 816 | 815 | 855 |
| Nuclear engineering | 128 | 145 | 149 | 144 | 117 | 107 | 122 | 122 |
| Engineering, other | 571 | 596 | 495 | 558 | 491 | 543 | 616 | 651 |
| Total, health fields | 19,402 | 21,416 | 23,066 | 25,723 | 28,328 | 30,528 | 31,909 | 33,149 |
| Clinical fields | 672 | 816 | 998 | 1,107 | 1,248 | 1,236 | 1,239 | 1,401 |
| Dental sciences | 237 | 252 | 304 | 303 | 325 | 370 | 394 | 470 |
| Nursing | 5,745 | 6,007 | 5,958 | 6,329 | 7,305 | 7,854 | 7,867 | 8,130 |
| Pharmaceutical sciences | 831 | 895 | 861 | 932 | 967 | 960 | 1,003 | 1,069 |
| Preventive medicine/community health | 2,636 | 2,641 | 2,903 | 3,220 | 3,272 | 3,656 | 3,501 | 3,416 |
| Speech pathology/audiology | 5,244 | 5,993 | 6,566 | 7,444 | 8,017 | 8,369 | 8,903 | 9,122 |
| Veterinary sciences | 294 | 281 | 315 | 321 | 327 | 355 | 352 | 501 |
| Other health fields | 3,743 | 4,531 | 5,161 | 6,067 | 6,867 | 7,728 | 8,650 | 9,040 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 20. Full-time graduate students in science, engineering, and health fields in all institutions,
by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97**

Page 1 of 3

| Field, citizenship, and racial/ethnic background | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 292,830 | 307,040 | 322,609 | 329,679 | 332,129 | 329,148 | 328,453 | 326,842 |
| Total U.S. citizens | 201,679 | 211,592 | 225,879 | 236,316 | 242,299 | 242,431 | 241,072 | 238,281 |
| Black, non-Hispanic | 8,112 | 8,863 | 10,219 | 11,387 | 11,965 | 12,501 | 12,989 | 13,558 |
| American Indian/Alaskan Native | 763 | 857 | 1,014 | 1,063 | 1,138 | 1,254 | 1,307 | 1,361 |
| Asian/Pacific Islander | 11,651 | 12,489 | 14,709 | 16,941 | 19,177 | 19,072 | 19,499 | 20,029 |
| Hispanic | 7,571 | 8,195 | 9,076 | 9,798 | 9,878 | 11,040 | 11,349 | 11,432 |
| White, non-Hispanic | 166,607 | 172,434 | 181,698 | 187,128 | 191,378 | 187,792 | 185,596 | 180,459 |
| Other or unknown | 6,975 | 8,754 | 9,163 | 9,999 | 8,763 | 10,772 | 10,332 | 11,442 |
| Non-U.S. citizens | 91,151 | 95,448 | 96,730 | 93,363 | 89,830 | 86,717 | 87,381 | 88,561 |
| Total, science and engineering | 265,399 | 277,174 | 290,510 | 294,030 | 293,048 | 287,253 | 284,194 | 280,612 |
| Total U.S. citizens | 177,804 | 185,487 | 197,473 | 204,484 | 206,851 | 204,163 | 200,783 | 196,041 |
| Black, non-Hispanic | 7,029 | 7,692 | 8,904 | 9,903 | 10,343 | 10,668 | 10,986 | 11,415 |
| American Indian/Alaskan Native | 655 | 717 | 847 | 896 | 960 | 1,055 | 1,087 | 1,123 |
| Asian/Pacific Islander | 10,610 | 11,267 | 13,317 | 15,197 | 17,170 | 16,771 | 16,814 | 17,068 |
| Hispanic | 6,389 | 6,931 | 7,595 | 8,200 | 8,184 | 9,082 | 9,321 | 9,549 |
| White, non-Hispanic | 146,697 | 150,939 | 158,434 | 161,321 | 162,784 | 157,498 | 153,837 | 147,386 |
| Other or unknown | 6,424 | 7,941 | 8,376 | 8,967 | 7,410 | 9,089 | 8,738 | 9,500 |
| Non-U.S. citizens | 87,595 | 91,687 | 93,037 | 89,546 | 86,197 | 83,090 | 83,411 | 84,571 |
| Sciences, total | 199,422 | 206,140 | 216,084 | 220,233 | 221,482 | 219,479 | 218,343 | 215,018 |
| Total U.S. citizens | 143,340 | 148,396 | 157,575 | 163,261 | 165,684 | 165,564 | 164,295 | 161,197 |
| Black, non-Hispanic | 6,079 | 6,552 | 7,545 | 8,413 | 8,640 | 8,978 | 9,323 | 9,736 |
| American Indian/Alaskan Native | 590 | 610 | 741 | 773 | 826 | 919 | 946 | 983 |
| Asian/Pacific Islander | 7,051 | 7,424 | 8,820 | 10,336 | 11,446 | 11,631 | 12,000 | 12,335 |
| Hispanic | 5,315 | 5,770 | 6,222 | 6,682 | 6,564 | 7,459 | 7,663 | 7,957 |
| White, non-Hispanic | 119,909 | 122,871 | 128,490 | 130,976 | 132,701 | 129,698 | 127,657 | 122,693 |
| Other or unknown | 4,396 | 5,169 | 5,757 | 6,081 | 5,507 | 6,879 | 6,706 | 7,493 |
| Non-U.S. citizens | 56,082 | 57,744 | 58,509 | 56,972 | 55,798 | 53,915 | 54,048 | 53,821 |
| Physical sciences | 29,485 | 30,117 | 30,673 | 30,611 | 30,043 | 28,902 | 27,956 | 26,892 |
| Total U.S. citizens | 17,836 | 18,267 | 18,759 | 19,231 | 19,130 | 18,410 | 17,639 | 16,796 |
| Black, non-Hispanic | 488 | 529 | 630 | 690 | 709 | 729 | 769 | 741 |
| American Indian/Alaskan Native | 56 | 56 | 63 | 73 | 60 | 66 | 55 | 58 |
| Asian/Pacific Islander | 1,017 | 1,219 | 1,336 | 1,652 | 1,600 | 1,462 | 1,422 | 1,345 |
| Hispanic | 530 | 562 | 572 | 591 | 575 | 586 | 604 | 649 |
| White, non-Hispanic | 15,377 | 15,412 | 15,566 | 15,681 | 15,652 | 14,813 | 14,177 | 13,284 |
| Other or unknown | 368 | 489 | 592 | 544 | 534 | 754 | 612 | 719 |
| Non-U.S. citizens | 11,649 | 11,850 | 11,914 | 11,380 | 10,913 | 10,492 | 10,317 | 10,096 |
| Earth, atmospheric, & ocean sciences | 10,244 | 10,373 | 10,986 | 11,367 | 11,470 | 11,275 | 10,826 | 10,550 |
| Total U.S. citizens | 7,813 | 7,802 | 8,309 | 8,680 | 8,608 | 8,689 | 8,430 | 8,328 |
| Black, non-Hispanic | 85 | 97 | 128 | 142 | 129 | 136 | 130 | 138 |
| American Indian/Alaskan Native | 25 | 18 | 23 | 29 | 39 | 40 | 42 | 46 |
| Asian/Pacific Islander | 188 | 200 | 287 | 375 | 328 | 318 | 291 | 288 |
| Hispanic | 187 | 194 | 222 | 289 | 240 | 259 | 263 | 275 |
| White, non-Hispanic | 7,141 | 7,041 | 7,302 | 7,516 | 7,678 | 7,657 | 7,447 | 7,266 |
| Other or unknown | 187 | 252 | 347 | 329 | 194 | 279 | 257 | 315 |
| Non-U.S. citizens | 2,431 | 2,571 | 2,677 | 2,687 | 2,862 | 2,586 | 2,396 | 2,222 |
| Mathematical sciences | 13,865 | 14,256 | 14,679 | 14,530 | 14,226 | 13,410 | 12,966 | 12,153 |
| Total U.S. citizens | 7,961 | 8,380 | 8,939 | 9,056 | 8,876 | 8,291 | 7,885 | 7,277 |
| Black, non-Hispanic | 264 | 276 | 331 | 411 | 412 | 423 | 422 | 387 |
| American Indian/Alaskan Native | 13 | 12 | 20 | 13 | 26 | 41 | 31 | 32 |
| Asian/Pacific Islander | 494 | 555 | 625 | 648 | 802 | 738 | 755 | 696 |
| Hispanic | 244 | 225 | 231 | 258 | 213 | 234 | 216 | 241 |
| White, non-Hispanic | 6,532 | 6,762 | 7,144 | 7,048 | 6,993 | 6,443 | 6,138 | 5,581 |
| Other or unknown | 414 | 550 | 588 | 678 | 430 | 412 | 323 | 340 |
| Non-U.S. citizens | 5,904 | 5,876 | 5,740 | 5,474 | 5,350 | 5,119 | 5,081 | 4,876 |
| Computer sciences | 16,689 | 16,516 | 17,486 | 17,374 | 16,674 | 16,490 | 17,173 | 18,320 |
| Total U.S. citizens | 8,742 | 8,426 | 8,852 | 8,985 | 8,731 | 8,610 | 8,374 | 8,649 |
| Black, non-Hispanic | 367 | 446 | 411 | 460 | 465 | 485 | 475 | 495 |
| American Indian/Alaskan Native | 18 | 18 | 25 | 26 | 11 | 22 | 20 | 22 |
| Asian/Pacific Islander | 1,188 | 1,191 | 1,387 | 1,505 | 1,702 | 1,652 | 1,733 | 1,995 |
| Hispanic | 188 | 194 | 225 | 217 | 215 | 256 | 236 | 243 |
| White, non-Hispanic | 6,451 | 5,936 | 6,129 | 6,018 | 5,924 | 5,726 | 5,437 | 5,228 |
| Other or unknown | 530 | 641 | 675 | 759 | 414 | 469 | 473 | 666 |
| Non-U.S. citizens | 7,947 | 8,090 | 8,634 | 8,389 | 7,943 | 7,880 | 8,799 | 9,671 |

See explanatory information, if any, and SOURCE at end of table.

Table 20. Full-time graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

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| Field, citizenship, and racial/ethnic background | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Agricultural sciences | 9,100 | 9,289 | 9,452 | 9,468 | 9,492 | 9,620 | 9,298 | 9,110 |
| Total U.S. citizens | 6,215 | 6,405 | 6,590 | 6,661 | 6,680 | 6,866 | 6,725 | 6,741 |
| Black, non-Hispanic | 133 | 113 | 163 | 162 | 162 | 227 | 194 | 176 |
| American Indian/Alaskan Native | 17 | 27 | 31 | 31 | 27 | 46 | 37 | 47 |
| Asian/Pacific Islander | 212 | 197 | 174 | 223 | 211 | 215 | 221 | 237 |
| Hispanic | 240 | 236 | 232 | 256 | 217 | 221 | 277 | 294 |
| White, non-Hispanic | 5,466 | 5,727 | 5,811 | 5,828 | 5,913 | 5,932 | 5,816 | 5,725 |
| Other or unknown | 147 | 105 | 179 | 161 | 150 | 225 | 180 | 262 |
| Non-U.S. citizens | 2,885 | 2,884 | 2,862 | 2,807 | 2,812 | 2,754 | 2,573 | 2,369 |
| Biological sciences | 40,945 | 42,700 | 44,389 | 46,481 | 48,017 | 48,330 | 47,744 | 46,998 |
| Total U.S. citizens | 30,286 | 31,102 | 32,558 | 34,520 | 36,228 | 37,196 | 37,229 | 36,764 |
| Black, non-Hispanic | 931 | 997 | 1,119 | 1,348 | 1,369 | 1,450 | 1,513 | 1,734 |
| American Indian/Alaskan Native | 111 | 91 | 115 | 123 | 141 | 160 | 158 | 166 |
| Asian/Pacific Islander | 1,937 | 1,985 | 2,357 | 2,908 | 3,420 | 3,759 | 3,874 | 3,824 |
| Hispanic | 961 | 1,100 | 1,169 | 1,334 | 1,344 | 1,477 | 1,468 | 1,613 |
| White, non-Hispanic | 25,737 | 26,275 | 27,064 | 27,906 | 29,036 | 29,139 | 29,028 | 28,042 |
| Other or unknown | 609 | 654 | 734 | 901 | 918 | 1,211 | 1,188 | 1,385 |
| Non-U.S. citizens | 10,659 | 11,598 | 11,831 | 11,961 | 11,789 | 11,134 | 10,515 | 10,234 |
| Psychology | 30,618 | 32,258 | 34,162 | 34,782 | 35,288 | 35,222 | 35,468 | 35,522 |
| Total U.S. citizens | 29,133 | 30,634 | 32,548 | 33,196 | 33,430 | 33,574 | 33,845 | 33,855 |
| Black, non-Hispanic | 1,268 | 1,424 | 1,656 | 1,854 | 2,046 | 2,028 | 2,087 | 2,218 |
| American Indian/Alaskan Native | 150 | 180 | 210 | 214 | 234 | 255 | 270 | 262 |
| Asian/Pacific Islander | 728 | 749 | 946 | 1,090 | 1,160 | 1,168 | 1,329 | 1,421 |
| Hispanic | 1,411 | 1,587 | 1,648 | 1,610 | 1,505 | 1,944 | 2,093 | 2,097 |
| White, non-Hispanic | 24,834 | 25,610 | 26,849 | 27,239 | 27,138 | 26,664 | 26,561 | 26,236 |
| Other or unknown | 742 | 1,084 | 1,239 | 1,189 | 1,347 | 1,515 | 1,505 | 1,621 |
| Non-U.S. citizens | 1,485 | 1,624 | 1,614 | 1,586 | 1,858 | 1,648 | 1,623 | 1,667 |
| Social sciences | 48,476 | 50,631 | 54,257 | 55,620 | 56,272 | 56,230 | 56,912 | 55,473 |
| Total U.S. citizens | 35,354 | 37,380 | 41,020 | 42,932 | 44,001 | 43,928 | 44,168 | 42,787 |
| Black, non-Hispanic | 2,543 | 2,670 | 3,107 | 3,346 | 3,348 | 3,500 | 3,733 | 3,847 |
| American Indian/Alaskan Native | 200 | 208 | 254 | 264 | 288 | 289 | 333 | 350 |
| Asian/Pacific Islander | 1,287 | 1,328 | 1,708 | 1,935 | 2,223 | 2,319 | 2,375 | 2,529 |
| Hispanic | 1,554 | 1,672 | 1,923 | 2,127 | 2,255 | 2,482 | 2,506 | 2,545 |
| White, non-Hispanic | 28,371 | 30,108 | 32,625 | 33,740 | 34,367 | 33,324 | 33,053 | 31,331 |
| Other or unknown | 1,399 | 1,394 | 1,403 | 1,520 | 1,520 | 2,014 | 2,168 | 2,185 |
| Non-U.S. citizens | 13,122 | 13,251 | 13,237 | 12,688 | 12,271 | 12,302 | 12,744 | 12,686 |
| Engineering, total | 65,977 | 71,034 | 74,426 | 73,797 | 71,566 | 67,774 | 65,851 | 65,594 |
| Total U.S. citizens | 34,464 | 37,091 | 39,898 | 41,223 | 41,167 | 38,599 | 36,488 | 34,844 |
| Black, non-Hispanic | 950 | 1,140 | 1,359 | 1,490 | 1,703 | 1,690 | 1,663 | 1,679 |
| American Indian/Alaskan Native | 65 | 107 | 106 | 123 | 134 | 136 | 141 | 140 |
| Asian/Pacific Islander | 3,559 | 3,843 | 4,497 | 4,861 | 5,724 | 5,140 | 4,814 | 4,733 |
| Hispanic | 1,074 | 1,161 | 1,373 | 1,518 | 1,620 | 1,623 | 1,658 | 1,592 |
| White, non-Hispanic | 26,788 | 28,068 | 29,944 | 30,345 | 30,083 | 27,800 | 26,180 | 24,693 |
| Other or unknown | 2,028 | 2,772 | 2,619 | 2,886 | 1,903 | 2,210 | 2,032 | 2,007 |
| Non-U.S. citizens | 31,513 | 33,943 | 34,528 | 32,574 | 30,399 | 29,175 | 29,363 | 30,750 |
| Chemical engineering | 5,443 | 5,788 | 5,946 | 6,041 | 6,105 | 5,957 | 5,909 | 5,784 |
| Total U.S. citizens | 2,668 | 2,798 | 2,948 | 3,107 | 3,370 | 3,304 | 3,368 | 3,263 |
| Black, non-Hispanic | 65 | 95 | 108 | 115 | 133 | 134 | 143 | 128 |
| American Indian/Alaskan Native | 1 | 22 | 11 | 12 | 15 | 18 | 21 | 13 |
| Asian/Pacific Islander | 240 | 311 | 274 | 348 | 395 | 351 | 378 | 405 |
| Hispanic | 111 | 110 | 131 | 131 | 134 | 164 | 159 | 115 |
| White, non-Hispanic | 2,195 | 2,193 | 2,315 | 2,395 | 2,578 | 2,531 | 2,527 | 2,483 |
| Other or unknown | 56 | 67 | 109 | 106 | 115 | 106 | 140 | 119 |
| Non-U.S. citizens | 2,775 | 2,990 | 2,998 | 2,934 | 2,735 | 2,653 | 2,541 | 2,521 |
| Civil engineering | 10,128 | 11,328 | 12,454 | 12,458 | 12,641 | 12,248 | 11,791 | 11,259 |
| Total U.S. citizens | 5,375 | 6,140 | 7,003 | 7,440 | 7,848 | 7,652 | 7,509 | 7,007 |
| Black, non-Hispanic | 117 | 153 | 188 | 229 | 230 | 261 | 242 | 247 |
| American Indian/Alaskan Native | 17 | 20 | 20 | 26 | 23 | 27 | 36 | 41 |
| Asian/Pacific Islander | 409 | 459 | 558 | 601 | 776 | 760 | 719 | 625 |
| Hispanic | 182 | 227 | 277 | 337 | 354 | 378 | 452 | 441 |
| White, non-Hispanic | 4,418 | 5,030 | 5,663 | 5,926 | 6,212 | 5,892 | 5,706 | 5,382 |
| Other or unknown | 232 | 251 | 297 | 321 | 253 | 334 | 354 | 271 |
| Non-U.S. citizens | 4,753 | 5,188 | 5,451 | 5,018 | 4,793 | 4,596 | 4,282 | 4,252 |

See explanatory information, if any, and SOURCE at end of table.

**Table 20. Full-time graduate students in science, engineering, and health fields in all institutions,
by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97**

Page 3 of 3

| Field, citizenship, and racial/ethnic background | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Electrical engineering | 18,675 | 19,904 | 20,996 | 20,370 | 19,412 | 18,187 | 17,989 | 18,926 |
| Total U.S. citizens | 9,652 | 9,976 | 10,577 | 10,428 | 10,467 | 9,382 | 8,714 | 8,521 |
| Black, non-Hispanic | 322 | 371 | 437 | 479 | 538 | 484 | 445 | 481 |
| American Indian/Alaskan Native | 18 | 26 | 26 | 27 | 23 | 29 | 27 | 25 |
| Asian/Pacific Islander | 1,513 | 1,498 | 1,766 | 1,690 | 2,147 | 1,889 | 1,830 | 1,766 |
| Hispanic | 294 | 331 | 378 | 419 | 415 | 385 | 374 | 389 |
| White, non-Hispanic | 6,839 | 6,853 | 7,116 | 7,003 | 6,701 | 5,893 | 5,420 | 5,134 |
| Other or unknown | 666 | 897 | 854 | 810 | 643 | 702 | 618 | 726 |
| Non-U.S. citizens | 9,023 | 9,928 | 10,419 | 9,942 | 8,945 | 8,805 | 9,275 | 10,405 |
| Industrial engineering | 4,770 | 5,598 | 6,081 | 5,902 | 5,910 | 5,342 | 5,128 | 5,071 |
| Total U.S. citizens | 2,374 | 2,760 | 3,076 | 3,209 | 3,180 | 2,863 | 2,512 | 2,394 |
| Black, non-Hispanic | 114 | 153 | 191 | 181 | 197 | 200 | 189 | 191 |
| American Indian/Alaskan Native | 7 | 9 | 14 | 14 | 9 | 4 | 8 | 8 |
| Asian/Pacific Islander | 174 | 232 | 336 | 392 | 359 | 337 | 285 | 304 |
| Hispanic | 109 | 103 | 122 | 144 | 160 | 146 | 153 | 145 |
| White, non-Hispanic | 1,802 | 2,000 | 2,160 | 2,161 | 2,293 | 1,921 | 1,733 | 1,620 |
| Other or unknown | 168 | 263 | 253 | 317 | 162 | 255 | 144 | 126 |
| Non-U.S. citizens | 2,396 | 2,838 | 3,005 | 2,693 | 2,730 | 2,479 | 2,616 | 2,677 |
| Mechanical engineering | 10,867 | 11,687 | 12,383 | 12,395 | 11,875 | 11,128 | 10,690 | 10,432 |
| Total U.S. citizens | 5,781 | 6,120 | 6,803 | 7,228 | 7,090 | 6,548 | 6,024 | 5,591 |
| Black, non-Hispanic | 151 | 149 | 199 | 225 | 283 | 285 | 298 | 315 |
| American Indian/Alaskan Native | 6 | 9 | 14 | 19 | 25 | 30 | 23 | 22 |
| Asian/Pacific Islander | 488 | 578 | 709 | 826 | 969 | 804 | 705 | 631 |
| Hispanic | 158 | 193 | 207 | 215 | 250 | 257 | 237 | 234 |
| White, non-Hispanic | 4,439 | 4,592 | 5,169 | 5,289 | 5,175 | 4,774 | 4,438 | 4,073 |
| Other or unknown | 539 | 599 | 505 | 654 | 388 | 398 | 323 | 316 |
| Non-U.S. citizens | 5,086 | 5,567 | 5,580 | 5,167 | 4,785 | 4,580 | 4,666 | 4,841 |
| Other engineering | 16,094 | 16,729 | 16,566 | 16,631 | 15,623 | 14,912 | 14,344 | 14,122 |
| Total U.S. citizens | 8,614 | 9,297 | 9,491 | 9,811 | 9,212 | 8,850 | 8,361 | 8,068 |
| Black, non-Hispanic | 181 | 219 | 236 | 261 | 322 | 326 | 346 | 317 |
| American Indian/Alaskan Native | 16 | 21 | 21 | 25 | 39 | 28 | 26 | 31 |
| Asian/Pacific Islander | 735 | 765 | 854 | 1,004 | 1,078 | 999 | 897 | 1,002 |
| Hispanic | 220 | 197 | 258 | 272 | 307 | 293 | 283 | 268 |
| White, non-Hispanic | 7,095 | 7,400 | 7,521 | 7,571 | 7,124 | 6,789 | 6,356 | 6,001 |
| Other or unknown | 367 | 695 | 601 | 678 | 342 | 415 | 453 | 449 |
| Non-U.S. citizens | 7,480 | 7,432 | 7,075 | 6,820 | 6,411 | 6,062 | 5,983 | 6,054 |
| Total, health fields | 27,431 | 29,866 | 32,099 | 35,649 | 39,081 | 41,895 | 44,259 | 46,230 |
| Total U.S. citizens | 23,875 | 26,105 | 28,406 | 31,832 | 35,448 | 38,268 | 40,289 | 42,240 |
| Black, non-Hispanic | 1,083 | 1,171 | 1,315 | 1,484 | 1,622 | 1,833 | 2,003 | 2,143 |
| American Indian/Alaskan Native | 108 | 140 | 167 | 167 | 178 | 199 | 220 | 238 |
| Asian/Pacific Islander | 1,041 | 1,222 | 1,392 | 1,744 | 2,007 | 2,301 | 2,685 | 2,961 |
| Hispanic | 1,182 | 1,264 | 1,481 | 1,598 | 1,694 | 1,958 | 2,028 | 1,883 |
| White, non-Hispanic | 19,910 | 21,495 | 23,264 | 25,807 | 28,594 | 30,294 | 31,759 | 33,073 |
| Other or unknown | 551 | 813 | 787 | 1,032 | 1,353 | 1,683 | 1,594 | 1,942 |
| Non-U.S. citizens | 3,556 | 3,761 | 3,693 | 3,817 | 3,633 | 3,627 | 3,970 | 3,990 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 21. Full-time graduate science, engineering, and health students without U.S. citizenship
in all institutions, by detailed field: 1990-97**

Page 1 of 1

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, all surveyed fields | 91,151 | 95,448 | 96,730 | 93,363 | 89,830 | 86,717 | 87,381 | 88,561 |
| Total, science and engineering fields | 87,595 | 91,687 | 93,037 | 89,546 | 86,197 | 83,090 | 83,411 | 84,571 |
| Sciences, total | 56,082 | 57,744 | 58,509 | 56,972 | 55,798 | 53,915 | 54,048 | 53,821 |
| Physical sciences, total | 11,649 | 11,850 | 11,914 | 11,380 | 10,913 | 10,492 | 10,317 | 10,096 |
| Astronomy | 187 | 212 | 219 | 210 | 259 | 225 | 212 | 184 |
| Chemistry | 6,140 | 6,338 | 6,264 | 6,075 | 5,915 | 5,790 | 5,737 | 5,610 |
| Physics | 5,294 | 5,269 | 5,395 | 5,041 | 4,672 | 4,419 | 4,323 | 4,257 |
| Physical sciences, n.e.c. | 28 | 31 | 36 | 54 | 67 | 58 | 45 | 45 |
| Earth, atmos., & ocean sci., total | 2,431 | 2,571 | 2,677 | 2,687 | 2,862 | 2,586 | 2,396 | 2,222 |
| Atmospheric sciences | 264 | 289 | 307 | 272 | 250 | 248 | 268 | 281 |
| Geosciences | 1,361 | 1,406 | 1,520 | 1,520 | 1,559 | 1,390 | 1,300 | 1,178 |
| Oceanography | 532 | 564 | 563 | 557 | 671 | 583 | 510 | 471 |
| Earth, atmos., & ocean sci., n.e.c. | 274 | 312 | 287 | 338 | 382 | 365 | 318 | 292 |
| Mathematical sciences | 5,904 | 5,876 | 5,740 | 5,474 | 5,350 | 5,119 | 5,081 | 4,876 |
| Computer sciences | 7,947 | 8,090 | 8,634 | 8,389 | 7,943 | 7,880 | 8,799 | 9,671 |
| Agricultural sciences | 2,885 | 2,884 | 2,862 | 2,807 | 2,812 | 2,754 | 2,573 | 2,369 |
| Biological sciences, total | 10,659 | 11,598 | 11,831 | 11,961 | 11,789 | 11,134 | 10,515 | 10,234 |
| Anatomy | 202 | 241 | 237 | 239 | 222 | 240 | 217 | 213 |
| Biochemistry | 1,625 | 1,717 | 1,721 | 1,742 | 1,689 | 1,582 | 1,444 | 1,357 |
| Biology | 1,779 | 1,864 | 1,891 | 1,829 | 1,732 | 1,687 | 1,679 | 1,780 |
| Biometry/epidemiology | 342 | 448 | 487 | 542 | 533 | 500 | 468 | 436 |
| Biophysics | 198 | 246 | 249 | 214 | 208 | 198 | 175 | 170 |
| Botany | 832 | 849 | 807 | 817 | 739 | 639 | 627 | 610 |
| Cell biology | 535 | 619 | 692 | 727 | 848 | 789 | 775 | 762 |
| Ecology | 151 | 150 | 133 | 165 | 161 | 154 | 143 | 133 |
| Entomology/parasitology | 298 | 335 | 304 | 321 | 323 | 332 | 285 | 259 |
| Genetics | 293 | 308 | 344 | 367 | 348 | 340 | 373 | 399 |
| Microbio., immunology, & virology | 1,150 | 1,193 | 1,141 | 1,229 | 1,246 | 1,129 | 1,027 | 952 |
| Nutrition | 1,046 | 1,117 | 1,076 | 1,197 | 1,099 | 1,116 | 1,022 | 956 |
| Pathology | 282 | 315 | 322 | 339 | 335 | 322 | 319 | 281 |
| Pharmacology | 570 | 632 | 680 | 612 | 627 | 529 | 556 | 536 |
| Physiology | 581 | 638 | 632 | 597 | 574 | 509 | 420 | 402 |
| Zoology | 292 | 314 | 295 | 261 | 272 | 228 | 211 | 184 |
| Biosciences, n.e.c. | 483 | 612 | 820 | 763 | 833 | 840 | 774 | 804 |
| Psychology | 1,485 | 1,624 | 1,614 | 1,586 | 1,858 | 1,648 | 1,623 | 1,667 |
| Social sciences, total | 13,122 | 13,251 | 13,237 | 12,688 | 12,271 | 12,302 | 12,744 | 12,686 |
| Agricultural economics | 930 | 954 | 995 | 892 | 832 | 899 | 804 | 821 |
| Anthropology (cultural & social) | 697 | 716 | 717 | 675 | 681 | 584 | 592 | 596 |
| Economics (except agricultural) | 4,635 | 4,779 | 4,845 | 4,694 | 4,579 | 4,691 | 4,904 | 4,762 |
| Geography | 432 | 410 | 426 | 432 | 398 | 396 | 398 | 442 |
| Linguistics | 1,068 | 1,052 | 952 | 908 | 898 | 874 | 883 | 852 |
| Political science | 2,753 | 2,817 | 2,803 | 2,764 | 2,639 | 2,675 | 2,956 | 2,860 |
| Sociology | 1,392 | 1,311 | 1,299 | 1,152 | 1,065 | 943 | 936 | 993 |
| Sociology/anthropology | 134 | 110 | 98 | 72 | 77 | 77 | 67 | 73 |
| Social sciences, other | 1,081 | 1,102 | 1,102 | 1,099 | 1,102 | 1,163 | 1,204 | 1,287 |
| Engineering, total | 31,513 | 33,943 | 34,528 | 32,574 | 30,399 | 29,175 | 29,363 | 30,750 |
| Aerospace engineering | 1,140 | 1,124 | 1,060 | 1,084 | 1,138 | 1,082 | 1,159 | 1,202 |
| Agricultural engineering | 469 | 493 | 463 | 432 | 441 | 445 | 406 | 351 |
| Biomedical engineering | 588 | 662 | 723 | 699 | 730 | 662 | 633 | 652 |
| Chemical engineering | 2,775 | 2,990 | 2,998 | 2,934 | 2,735 | 2,653 | 2,541 | 2,521 |
| Civil engineering | 4,753 | 5,188 | 5,451 | 5,018 | 4,793 | 4,596 | 4,282 | 4,252 |
| Electrical engineering | 9,023 | 9,928 | 10,419 | 9,942 | 8,945 | 8,805 | 9,275 | 10,405 |
| Engineering science | 507 | 590 | 613 | 573 | 514 | 418 | 426 | 398 |
| Industrial/manufacturing eng. | 2,396 | 2,838 | 3,005 | 2,693 | 2,730 | 2,479 | 2,616 | 2,677 |
| Mechanical engineering | 5,086 | 5,567 | 5,580 | 5,167 | 4,785 | 4,580 | 4,666 | 4,841 |
| Metallurgical/materials eng. | 1,945 | 1,991 | 2,027 | 1,985 | 1,773 | 1,722 | 1,732 | 1,767 |
| Nuclear engineering | 503 | 490 | 473 | 436 | 379 | 347 | 284 | 274 |
| Engineering, other | 2,328 | 2,082 | 1,716 | 1,611 | 1,436 | 1,386 | 1,343 | 1,410 |
| Total, health fields | 3,556 | 3,761 | 3,693 | 3,817 | 3,633 | 3,627 | 3,970 | 3,990 |
| Clinical fields | 296 | 331 | 382 | 392 | 369 | 256 | 245 | 235 |
| Dental sciences | 184 | 223 | 228 | 236 | 210 | 240 | 281 | 307 |
| Nursing | 199 | 252 | 215 | 245 | 282 | 296 | 263 | 306 |
| Pharmaceutical sciences | 959 | 984 | 974 | 954 | 871 | 957 | 1,052 | 1,067 |
| Preventive medicine/community health | 977 | 962 | 841 | 869 | 728 | 724 | 793 | 756 |
| Speech pathology/audiology | 289 | 315 | 327 | 339 | 335 | 271 | 291 | 297 |
| Veterinary sciences | 201 | 223 | 232 | 223 | 211 | 241 | 266 | 273 |
| Other health fields | 451 | 471 | 494 | 559 | 627 | 642 | 779 | 749 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 22. Full-time graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

Page 1 of 2

| Carnegie classification and field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| All institutions: | | | | | | | | |
| Total, science and engineering fields | 265,399 | 277,174 | 290,510 | 294,030 | 293,048 | 287,253 | 284,194 | 280,612 |
| Sciences, total | 199,422 | 206,140 | 216,084 | 220,233 | 221,482 | 219,479 | 218,343 | 215,018 |
| Physical sciences | 29,485 | 30,117 | 30,673 | 30,611 | 30,043 | 28,902 | 27,956 | 26,892 |
| Earth, atmospheric, & ocean sciences | 10,244 | 10,373 | 10,986 | 11,367 | 11,470 | 11,275 | 10,826 | 10,550 |
| Mathematical sciences | 13,865 | 14,256 | 14,679 | 14,530 | 14,226 | 13,410 | 12,966 | 12,153 |
| Computer sciences | 16,689 | 16,516 | 17,486 | 17,374 | 16,674 | 16,490 | 17,173 | 18,320 |
| Agricultural sciences | 9,100 | 9,289 | 9,452 | 9,468 | 9,492 | 9,620 | 9,298 | 9,110 |
| Biological sciences | 40,945 | 42,700 | 44,389 | 46,481 | 48,017 | 48,330 | 47,744 | 46,998 |
| Psychology | 30,618 | 32,258 | 34,162 | 34,782 | 35,288 | 35,222 | 35,468 | 35,522 |
| Social sciences | 48,476 | 50,631 | 54,257 | 55,620 | 56,272 | 56,230 | 56,912 | 55,473 |
| Engineering, total | 65,977 | 71,034 | 74,426 | 73,797 | 71,566 | 67,774 | 65,851 | 65,594 |
| Research I: | | | | | | | | |
| Total, science and engineering fields | 115,111 | 117,875 | 121,824 | 123,931 | 123,434 | 120,156 | 117,635 | 115,242 |
| Sciences, total | 84,493 | 85,808 | 88,634 | 90,468 | 90,726 | 89,206 | 87,569 | 84,893 |
| Physical sciences | 14,489 | 14,621 | 14,740 | 14,789 | 14,386 | 13,917 | 13,513 | 12,960 |
| Earth, atmospheric, & ocean sciences | 4,278 | 4,231 | 4,412 | 4,500 | 4,546 | 4,495 | 4,202 | 4,003 |
| Mathematical sciences | 6,083 | 6,137 | 6,348 | 6,236 | 6,024 | 5,778 | 5,624 | 5,252 |
| Computer sciences | 5,842 | 5,870 | 6,002 | 6,049 | 5,986 | 5,856 | 5,941 | 5,919 |
| Agricultural sciences | 4,366 | 4,367 | 4,334 | 4,323 | 4,396 | 4,448 | 4,291 | 4,212 |
| Biological sciences | 20,147 | 20,705 | 21,314 | 22,317 | 23,028 | 22,996 | 22,581 | 22,067 |
| Psychology | 6,237 | 6,340 | 6,685 | 6,763 | 6,677 | 6,612 | 6,543 | 6,294 |
| Social sciences | 23,051 | 23,537 | 24,799 | 25,491 | 25,683 | 25,104 | 24,874 | 24,186 |
| Engineering, total | 30,618 | 32,067 | 33,190 | 33,463 | 32,708 | 30,950 | 30,066 | 30,349 |
| Research II: | | | | | | | | |
| Total, science and engineering fields | 22,575 | 24,299 | 25,422 | 25,528 | 25,193 | 25,009 | 24,488 | 24,036 |
| Sciences, total | 16,747 | 17,534 | 18,270 | 18,566 | 18,564 | 18,593 | 18,358 | 17,862 |
| Physical sciences | 2,808 | 2,877 | 2,965 | 2,939 | 2,902 | 2,824 | 2,659 | 2,553 |
| Earth, atmospheric, & ocean sciences | 981 | 946 | 1,077 | 1,091 | 1,145 | 1,168 | 1,058 | 1,032 |
| Mathematical sciences | 1,381 | 1,473 | 1,400 | 1,420 | 1,360 | 1,283 | 1,202 | 1,074 |
| Computer sciences | 1,189 | 1,198 | 1,422 | 1,390 | 1,444 | 1,360 | 1,442 | 1,319 |
| Agricultural sciences | 1,244 | 1,268 | 1,421 | 1,409 | 1,354 | 1,402 | 1,315 | 1,350 |
| Biological sciences | 3,097 | 3,209 | 3,161 | 3,282 | 3,348 | 3,442 | 3,339 | 3,416 |
| Psychology | 2,018 | 2,190 | 2,251 | 2,213 | 2,218 | 2,276 | 2,169 | 2,060 |
| Social sciences | 4,029 | 4,373 | 4,573 | 4,822 | 4,793 | 4,838 | 5,174 | 5,058 |
| Engineering, total | 5,828 | 6,765 | 7,152 | 6,962 | 6,629 | 6,416 | 6,130 | 6,174 |
| Doctorate-granting: | | | | | | | | |
| Total, science and engineering fields | 33,930 | 35,892 | 37,689 | 37,920 | 38,809 | 37,108 | 37,895 | 38,644 |
| Sciences, total | 26,960 | 27,971 | 29,552 | 29,979 | 31,036 | 30,004 | 30,683 | 31,426 |
| Physical sciences | 3,481 | 3,590 | 3,713 | 3,649 | 3,677 | 3,346 | 3,341 | 3,250 |
| Earth, atmospheric, & ocean sciences | 1,167 | 1,295 | 1,310 | 1,371 | 1,442 | 1,376 | 1,374 | 1,288 |
| Mathematical sciences | 1,816 | 1,959 | 2,049 | 2,091 | 2,100 | 1,890 | 1,818 | 1,766 |
| Computer sciences | 3,625 | 3,342 | 3,579 | 3,517 | 3,480 | 3,466 | 3,669 | 4,313 |
| Agricultural sciences | 372 | 355 | 436 | 399 | 432 | 403 | 446 | 420 |
| Biological sciences | 3,371 | 3,657 | 3,857 | 4,023 | 4,249 | 4,301 | 4,221 | 4,184 |
| Psychology | 6,888 | 6,872 | 7,124 | 7,508 | 7,861 | 7,501 | 7,743 | 8,180 |
| Social sciences | 6,240 | 6,901 | 7,484 | 7,421 | 7,795 | 7,721 | 8,071 | 8,025 |
| Engineering, total | 6,970 | 7,921 | 8,137 | 7,941 | 7,773 | 7,104 | 7,212 | 7,218 |

See explanatory information, if any, and SOURCE at end of table.

**Table 22. Full-time graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

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| Carnegie classification and field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Comprehensive: | | | | | | | | |
| Total, science and engineering fields | 19,380 | 21,390 | 23,134 | 23,611 | 23,564 | 23,533 | 23,775 | 24,493 |
| Sciences, total | 16,474 | 17,995 | 19,273 | 19,918 | 20,040 | 20,226 | 20,645 | 21,355 |
| Physical sciences | 1,006 | 1,050 | 1,020 | 1,122 | 1,124 | 1,113 | 1,065 | 1,004 |
| Earth, atmospheric, & ocean sciences | 580 | 654 | 719 | 799 | 827 | 808 | 819 | 920 |
| Mathematical sciences | 866 | 925 | 965 | 975 | 1,004 | 881 | 876 | 817 |
| Computer sciences | 2,219 | 2,361 | 2,452 | 2,302 | 2,020 | 1,946 | 2,304 | 2,787 |
| Agricultural sciences | 573 | 655 | 556 | 631 | 588 | 706 | 643 | 730 |
| Biological sciences | 2,104 | 2,185 | 2,354 | 2,744 | 2,671 | 2,781 | 2,818 | 2,872 |
| Psychology | 5,658 | 6,358 | 7,114 | 7,221 | 7,560 | 7,587 | 7,678 | 7,531 |
| Social sciences | 3,468 | 3,807 | 4,093 | 4,124 | 4,246 | 4,404 | 4,442 | 4,694 |
| Engineering, total | 2,906 | 3,395 | 3,861 | 3,693 | 3,524 | 3,307 | 3,130 | 3,138 |
| Engineering: | | | | | | | | |
| Total, science and engineering fields | 777 | 843 | 904 | 936 | 895 | 844 | 818 | 865 |
| Sciences, total | 377 | 374 | 387 | 405 | 367 | 350 | 370 | 352 |
| Physical sciences | 92 | 101 | 97 | 102 | 87 | 82 | 91 | 86 |
| Earth, atmospheric, & ocean sciences | 173 | 158 | 161 | 177 | 164 | 153 | 160 | 166 |
| Mathematical sciences | 11 | 17 | 13 | 18 | 11 | 8 | 9 | 4 |
| Computer sciences | 90 | 90 | 107 | 102 | 97 | 94 | 95 | 86 |
| Agricultural sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Biological sciences | 11 | 8 | 9 | 6 | 8 | 13 | 15 | 10 |
| Psychology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Social sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Engineering, total | 400 | 469 | 517 | 531 | 528 | 494 | 448 | 513 |
| Liberal arts: | | | | | | | | |
| Total, science and engineering fields | 1,214 | 1,545 | 1,658 | 1,513 | 1,585 | 1,449 | 1,419 | 1,287 |
| Sciences, total | 1,164 | 1,444 | 1,539 | 1,441 | 1,507 | 1,362 | 1,340 | 1,219 |
| Physical sciences | 80 | 88 | 94 | 94 | 100 | 85 | 85 | 94 |
| Earth, atmospheric, & ocean sciences | 77 | 119 | 139 | 133 | 118 | 107 | 108 | 123 |
| Mathematical sciences | 24 | 26 | 32 | 32 | 34 | 25 | 26 | 16 |
| Computer sciences | 12 | 10 | 9 | 5 | 6 | 2 | 5 | 2 |
| Agricultural sciences | 59 | 75 | 70 | 56 | 52 | 40 | 38 | 30 |
| Biological sciences | 108 | 115 | 114 | 118 | 123 | 115 | 112 | 114 |
| Psychology | 735 | 979 | 1,023 | 953 | 989 | 928 | 907 | 801 |
| Social sciences | 69 | 32 | 58 | 50 | 85 | 60 | 59 | 39 |
| Engineering, total | 50 | 101 | 119 | 72 | 78 | 87 | 79 | 68 |
| Other: | | | | | | | | |
| Total, science and engineering fields | 72,412 | 75,330 | 79,879 | 80,591 | 79,568 | 79,154 | 78,164 | 76,045 |
| Sciences, total | 53,207 | 55,014 | 58,429 | 59,456 | 59,242 | 59,738 | 59,378 | 57,911 |
| Physical sciences | 7,529 | 7,790 | 8,044 | 7,916 | 7,767 | 7,535 | 7,202 | 6,945 |
| Earth, atmospheric, & ocean sciences | 2,988 | 2,970 | 3,168 | 3,296 | 3,228 | 3,168 | 3,105 | 3,018 |
| Mathematical sciences | 3,684 | 3,719 | 3,872 | 3,758 | 3,693 | 3,545 | 3,411 | 3,224 |
| Computer sciences | 3,712 | 3,645 | 3,915 | 4,009 | 3,641 | 3,766 | 3,717 | 3,894 |
| Agricultural sciences | 2,486 | 2,569 | 2,635 | 2,650 | 2,670 | 2,621 | 2,565 | 2,368 |
| Biological sciences | 12,107 | 12,821 | 13,580 | 13,991 | 14,590 | 14,682 | 14,658 | 14,335 |
| Psychology | 9,082 | 9,519 | 9,965 | 10,124 | 9,983 | 10,318 | 10,428 | 10,656 |
| Social sciences | 11,619 | 11,981 | 13,250 | 13,712 | 13,670 | 14,103 | 14,292 | 13,471 |
| Engineering, total | 19,205 | 20,316 | 21,450 | 21,135 | 20,326 | 19,416 | 18,786 | 18,134 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 23. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and source of support: 1990-97**

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields: | | | | | | | | |
| Total, all sources | 292,830 | 307,040 | 322,609 | 329,679 | 332,129 | 329,148 | 328,453 | 326,842 |
| Federal, total | 59,272 | 63,014 | 65,626 | 67,688 | 68,566 | 67,310 | 65,252 | 64,340 |
| Dept. of Defense | 8,868 | 9,128 | 9,247 | 9,750 | 9,449 | 9,339 | 8,802 | 9,034 |
| Dept. of HHS, total | 19,522 | 20,493 | 21,428 | 22,038 | 22,680 | 22,787 | 22,371 | 22,384 |
| NIH | 14,996 | 16,018 | 17,093 | 18,137 | 18,295 | 18,111 | 17,932 | 18,016 |
| Other HHS | 4,526 | 4,475 | 4,335 | 3,901 | 4,385 | 4,676 | 4,439 | 4,368 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2,309 | 2,586 |
| NSF | 12,025 | 12,666 | 13,366 | 13,530 | 13,990 | 13,661 | 13,412 | 13,326 |
| USDA | 2,722 | 3,075 | 3,216 | 3,324 | 3,422 | 3,254 | 3,004 | 2,644 |
| All other Federal | 16,135 | 17,652 | 18,369 | 19,046 | 19,025 | 18,269 | 15,354 | 14,366 |
| Institutional support | 123,035 | 125,387 | 127,923 | 129,019 | 129,295 | 129,397 | 128,457 | 128,937 |
| Other outside support, total | 26,135 | 27,070 | 27,769 | 26,714 | 27,255 | 25,952 | 25,404 | 25,185 |
| All other U.S. | 19,604 | 20,427 | 21,309 | 21,233 | 21,537 | 20,405 | 20,154 | 20,354 |
| Foreign | 6,531 | 6,643 | 6,460 | 5,481 | 5,718 | 5,547 | 5,250 | 4,831 |
| Self-support | 84,388 | 91,569 | 101,291 | 106,258 | 107,013 | 106,489 | 109,340 | 108,380 |
| Total, science and engineering: | | | | | | | | |
| Total, all sources | 265,399 | 277,174 | 290,510 | 294,030 | 293,048 | 287,253 | 284,194 | 280,612 |
| Federal, total | 52,501 | 56,046 | 58,298 | 60,393 | 60,789 | 59,408 | 57,857 | 56,689 |
| Dept. of Defense | 8,492 | 8,711 | 8,848 | 9,315 | 9,067 | 9,006 | 8,471 | 8,714 |
| Dept. of HHS, total | 14,594 | 15,472 | 16,274 | 16,827 | 17,148 | 17,110 | 16,914 | 16,736 |
| NIH | 13,367 | 14,172 | 15,043 | 15,871 | 15,950 | 15,672 | 15,485 | 15,286 |
| Other HHS | 1,227 | 1,300 | 1,231 | 956 | 1,198 | 1,438 | 1,429 | 1,450 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2,295 | 2,565 |
| NSF | 11,976 | 12,610 | 13,296 | 13,441 | 13,873 | 13,561 | 13,330 | 13,228 |
| USDA | 2,664 | 3,015 | 3,147 | 3,246 | 3,348 | 3,199 | 2,954 | 2,602 |
| All other Federal | 14,775 | 16,238 | 16,733 | 17,564 | 17,353 | 16,532 | 13,893 | 12,844 |
| Institutional support | 115,864 | 117,907 | 120,276 | 120,899 | 120,834 | 120,417 | 119,086 | 119,277 |
| Other outside support, total | 24,765 | 25,549 | 26,075 | 24,971 | 25,390 | 23,926 | 23,379 | 23,192 |
| All other U.S. | 18,699 | 19,367 | 20,075 | 19,933 | 20,130 | 18,909 | 18,559 | 18,848 |
| Foreign | 6,066 | 6,182 | 6,000 | 5,038 | 5,260 | 5,017 | 4,820 | 4,344 |
| Self-support | 72,269 | 77,672 | 85,861 | 87,767 | 86,035 | 83,502 | 83,872 | 81,454 |
| Sciences, total: | | | | | | | | |
| Total, all sources | 199,422 | 206,140 | 216,084 | 220,233 | 221,482 | 219,479 | 218,343 | 215,018 |
| Federal, total | 37,829 | 40,064 | 41,734 | 43,503 | 43,938 | 43,047 | 42,024 | 40,851 |
| Dept. of Defense | 3,779 | 3,840 | 3,895 | 4,176 | 4,350 | 4,196 | 3,933 | 3,922 |
| Dept. of HHS, total | 13,834 | 14,662 | 15,373 | 15,903 | 16,242 | 16,192 | 16,079 | 15,828 |
| NIH | 12,706 | 13,448 | 14,245 | 15,077 | 15,168 | 14,904 | 14,754 | 14,525 |
| Other HHS | 1,128 | 1,214 | 1,128 | 826 | 1,074 | 1,288 | 1,325 | 1,303 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 1,202 | 1,304 |
| NSF | 8,094 | 8,313 | 8,691 | 8,880 | 9,109 | 8,981 | 8,737 | 8,646 |
| USDA | 2,433 | 2,741 | 2,789 | 2,940 | 3,003 | 2,858 | 2,663 | 2,388 |
| All other Federal | 9,689 | 10,508 | 10,986 | 11,604 | 11,234 | 10,820 | 9,410 | 8,763 |
| Institutional support | 92,553 | 93,291 | 95,350 | 95,940 | 96,269 | 96,585 | 95,694 | 95,484 |
| Other outside support, total | 14,384 | 14,923 | 15,525 | 15,254 | 16,012 | 14,819 | 14,505 | 14,174 |
| All other U.S. | 10,324 | 10,831 | 11,556 | 11,860 | 12,364 | 11,457 | 11,222 | 11,253 |
| Foreign | 4,060 | 4,092 | 3,969 | 3,394 | 3,648 | 3,362 | 3,283 | 2,921 |
| Self-support | 54,656 | 57,862 | 63,475 | 65,536 | 65,263 | 65,028 | 66,120 | 64,509 |
| Physical sciences: | | | | | | | | |
| Total, all sources | 29,485 | 30,117 | 30,673 | 30,611 | 30,043 | 28,902 | 27,956 | 26,892 |
| Federal, total | 10,284 | 10,834 | 11,007 | 11,140 | 11,032 | 10,359 | 9,887 | 9,444 |
| Dept. of Defense | 1,214 | 1,226 | 1,194 | 1,187 | 1,316 | 1,198 | 1,073 | 1,037 |
| Dept. of HHS, total | 2,096 | 2,042 | 2,188 | 2,162 | 2,209 | 2,078 | 2,078 | 1,953 |
| NIH | 1,952 | 1,874 | 2,056 | 2,051 | 2,074 | 1,898 | 1,795 | 1,637 |
| Other HHS | 144 | 168 | 132 | 111 | 135 | 180 | 283 | 316 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 538 | 586 |
| NSF | 3,567 | 3,571 | 3,601 | 3,623 | 3,703 | 3,605 | 3,385 | 3,366 |
| USDA | 54 | 61 | 68 | 61 | 42 | 38 | 43 | 31 |
| All other Federal | 3,353 | 3,934 | 3,956 | 4,107 | 3,762 | 3,440 | 2,770 | 2,471 |
| Institutional support | 15,272 | 15,049 | 15,358 | 15,148 | 14,831 | 14,848 | 14,349 | 14,144 |
| Other outside support, total | 1,974 | 2,228 | 2,349 | 2,234 | 2,316 | 2,081 | 2,096 | 1,876 |
| All other U.S. | 1,716 | 1,927 | 2,044 | 1,955 | 2,008 | 1,794 | 1,802 | 1,658 |
| Foreign | 258 | 301 | 305 | 279 | 308 | 287 | 294 | 218 |
| Self-support | 1,955 | 2,006 | 1,959 | 2,089 | 1,864 | 1,614 | 1,624 | 1,428 |

See explanatory information, if any, and SOURCE at end of table.

Table 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and source of support: 1990-97

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Earth, atmospheric, & ocean sciences: | | | | | | | | |
| Total, all sources | 10,244 | 10,373 | 10,986 | 11,367 | 11,470 | 11,275 | 10,826 | 10,550 |
| Federal, total | 2,991 | 3,119 | 3,436 | 3,652 | 3,630 | 3,472 | 3,273 | 3,119 |
| Dept. of Defense | 452 | 452 | 472 | 517 | 494 | 410 | 393 | 366 |
| Dept. of HHS, total | 34 | 56 | 49 | 48 | 37 | 33 | 49 | 40 |
| NIH | 21 | 23 | 43 | 41 | 36 | 30 | 30 | 27 |
| Other HHS | 13 | 33 | 6 | 7 | 1 | 3 | 19 | 13 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 331 | 355 |
| NSF | 1,210 | 1,223 | 1,320 | 1,366 | 1,409 | 1,387 | 1,242 | 1,201 |
| USDA | 57 | 69 | 86 | 64 | 61 | 65 | 75 | 52 |
| All other Federal | 1,238 | 1,319 | 1,509 | 1,657 | 1,629 | 1,577 | 1,183 | 1,105 |
| Institutional support | 4,257 | 4,314 | 4,316 | 4,366 | 4,343 | 4,441 | 4,273 | 4,387 |
| Other outside support, total | 952 | 974 | 1,006 | 928 | 1,023 | 968 | 918 | 885 |
| All other U.S. | 679 | 687 | 761 | 735 | 790 | 733 | 701 | 701 |
| Foreign | 273 | 287 | 245 | 193 | 233 | 235 | 217 | 184 |
| Self-support | 2,044 | 1,966 | 2,228 | 2,421 | 2,474 | 2,394 | 2,362 | 2,159 |
| Mathematical sciences: | | | | | | | | |
| Total, all sources | 13,865 | 14,256 | 14,679 | 14,530 | 14,226 | 13,410 | 12,966 | 12,153 |
| Federal, total | 1,333 | 1,503 | 1,497 | 1,474 | 1,397 | 1,287 | 1,237 | 1,170 |
| Dept. of Defense | 367 | 376 | 386 | 399 | 372 | 322 | 351 | 361 |
| Dept. of HHS, total | 49 | 69 | 118 | 80 | 76 | 87 | 82 | 96 |
| NIH | 39 | 64 | 111 | 74 | 68 | 63 | 61 | 66 |
| Other HHS | 10 | 5 | 7 | 6 | 8 | 24 | 21 | 30 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 21 | 19 |
| NSF | 491 | 452 | 457 | 470 | 518 | 474 | 435 | 391 |
| USDA | 23 | 21 | 25 | 28 | 16 | 13 | 9 | 16 |
| All other Federal | 403 | 585 | 511 | 497 | 415 | 391 | 339 | 287 |
| Institutional support | 9,489 | 9,531 | 9,578 | 9,394 | 9,461 | 9,151 | 8,836 | 8,466 |
| Other outside support, total | 560 | 590 | 626 | 524 | 552 | 496 | 554 | 487 |
| All other U.S. | 317 | 321 | 356 | 303 | 333 | 309 | 347 | 310 |
| Foreign | 243 | 269 | 270 | 221 | 219 | 187 | 207 | 177 |
| Self-support | 2,483 | 2,632 | 2,978 | 3,138 | 2,816 | 2,476 | 2,339 | 2,030 |
| Computer sciences: | | | | | | | | |
| Total, all sources | 16,689 | 16,516 | 17,486 | 17,374 | 16,674 | 16,490 | 17,173 | 18,320 |
| Federal, total | 2,409 | 2,533 | 2,661 | 2,918 | 3,070 | 3,175 | 3,105 | 3,170 |
| Dept. of Defense | 1,129 | 1,131 | 1,210 | 1,327 | 1,345 | 1,419 | 1,349 | 1,431 |
| Dept. of HHS, total | 71 | 71 | 104 | 107 | 103 | 111 | 113 | 106 |
| NIH | 62 | 65 | 101 | 99 | 95 | 93 | 80 | 78 |
| Other HHS | 9 | 6 | 3 | 8 | 8 | 18 | 33 | 28 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 121 | 122 |
| NSF | 819 | 896 | 962 | 1,004 | 1,046 | 1,053 | 1,049 | 1,087 |
| USDA | 14 | 8 | 6 | 7 | 9 | 13 | 13 | 12 |
| All other Federal | 376 | 427 | 379 | 473 | 567 | 579 | 460 | 412 |
| Institutional support | 5,653 | 5,474 | 5,609 | 5,509 | 5,437 | 5,488 | 5,641 | 5,904 |
| Other outside support, total | 1,281 | 1,322 | 1,350 | 1,383 | 1,393 | 1,300 | 1,166 | 1,183 |
| All other U.S. | 935 | 972 | 1,029 | 1,131 | 1,107 | 1,063 | 919 | 1,025 |
| Foreign | 346 | 350 | 321 | 252 | 286 | 237 | 247 | 158 |
| Self-support | 7,346 | 7,187 | 7,866 | 7,564 | 6,774 | 6,527 | 7,261 | 8,063 |
| Agricultural sciences: | | | | | | | | |
| Total, all sources | 9,100 | 9,289 | 9,452 | 9,468 | 9,492 | 9,620 | 9,298 | 9,110 |
| Federal, total | 1,812 | 1,896 | 1,993 | 1,965 | 1,922 | 2,061 | 1,973 | 1,783 |
| Dept. of Defense | 18 | 26 | 18 | 37 | 35 | 32 | 38 | 39 |
| Dept. of HHS, total | 45 | 46 | 41 | 34 | 50 | 25 | 31 | 30 |
| NIH | 40 | 38 | 38 | 32 | 47 | 19 | 17 | 21 |
| Other HHS | 5 | 8 | 3 | 2 | 3 | 6 | 14 | 9 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 28 | 28 |
| NSF | 65 | 61 | 76 | 76 | 87 | 92 | 97 | 102 |
| USDA | 963 | 1,117 | 1,110 | 1,150 | 1,114 | 1,195 | 1,069 | 956 |
| All other Federal | 721 | 646 | 748 | 668 | 636 | 717 | 710 | 628 |
| Institutional support | 3,450 | 3,535 | 3,621 | 3,635 | 3,810 | 3,884 | 3,681 | 3,671 |
| Other outside support, total | 1,770 | 1,715 | 1,685 | 1,681 | 1,671 | 1,484 | 1,443 | 1,566 |
| All other U.S. | 1,101 | 1,059 | 1,099 | 1,189 | 1,153 | 1,081 | 1,088 | 1,227 |
| Foreign | 669 | 656 | 586 | 492 | 518 | 403 | 355 | 339 |
| Self-support | 2,068 | 2,143 | 2,153 | 2,187 | 2,089 | 2,191 | 2,201 | 2,090 |

See explanatory information, if any, and SOURCE at end of table.

Table 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and source of support: 1990-97

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Biological sciences: | | | | | | | | |
| Total, all sources | 40,945 | 42,700 | 44,389 | 46,481 | 48,017 | 48,330 | 47,744 | 46,998 |
| Federal, total | 13,652 | 14,503 | 15,148 | 16,210 | 16,724 | 16,627 | 16,549 | 16,274 |
| Dept. of Defense | 222 | 223 | 232 | 273 | 346 | 359 | 365 | 372 |
| Dept. of HHS, total | 9,951 | 10,667 | 11,054 | 11,632 | 11,979 | 12,058 | 11,876 | 11,805 |
| NIH | 9,584 | 10,215 | 10,637 | 11,314 | 11,464 | 11,386 | 11,287 | 11,223 |
| Other HHS | 367 | 452 | 417 | 318 | 515 | 672 | 589 | 582 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 90 | 109 |
| NSF | 1,212 | 1,282 | 1,347 | 1,382 | 1,382 | 1,407 | 1,494 | 1,535 |
| USDA | 963 | 1,062 | 1,083 | 1,222 | 1,289 | 1,090 | 1,071 | 925 |
| All other Federal | 1,304 | 1,269 | 1,432 | 1,701 | 1,728 | 1,713 | 1,653 | 1,528 |
| Institutional support | 18,868 | 19,267 | 19,753 | 20,028 | 20,712 | 20,832 | 20,417 | 20,322 |
| Other outside support, total | 3,536 | 3,735 | 3,787 | 3,864 | 4,138 | 3,893 | 3,741 | 3,607 |
| All other U.S. | 2,809 | 3,017 | 3,109 | 3,280 | 3,504 | 3,286 | 3,184 | 3,088 |
| Foreign | 727 | 718 | 678 | 584 | 634 | 607 | 557 | 519 |
| Self-support | 4,889 | 5,195 | 5,701 | 6,379 | 6,443 | 6,978 | 7,037 | 6,795 |
| Psychology: | | | | | | | | |
| Total, all sources | 30,618 | 32,258 | 34,162 | 34,782 | 35,288 | 35,222 | 35,468 | 35,522 |
| Federal, total | 2,394 | 2,492 | 2,582 | 2,653 | 2,634 | 2,543 | 2,753 | 2,701 |
| Dept. of Defense | 156 | 159 | 136 | 163 | 175 | 175 | 139 | 113 |
| Dept. of HHS, total | 1,274 | 1,342 | 1,398 | 1,423 | 1,365 | 1,326 | 1,523 | 1,447 |
| NIH | 798 | 901 | 962 | 1,163 | 1,098 | 1,094 | 1,218 | 1,189 |
| Other HHS | 476 | 441 | 436 | 260 | 267 | 232 | 305 | 258 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 21 | 20 |
| NSF | 262 | 268 | 283 | 314 | 289 | 288 | 289 | 277 |
| USDA | 37 | 24 | 19 | 15 | 38 | 16 | 5 | 7 |
| All other Federal | 665 | 699 | 746 | 738 | 767 | 738 | 776 | 837 |
| Institutional support | 12,133 | 12,279 | 12,676 | 13,215 | 12,966 | 12,841 | 13,053 | 13,511 |
| Other outside support, total | 1,118 | 1,071 | 1,108 | 1,079 | 1,190 | 1,133 | 1,044 | 1,219 |
| All other U.S. | 1,060 | 1,015 | 1,051 | 1,032 | 1,116 | 1,089 | 1,003 | 1,162 |
| Foreign | 58 | 56 | 57 | 47 | 74 | 44 | 41 | 57 |
| Self-support | 14,973 | 16,416 | 17,796 | 17,835 | 18,498 | 18,705 | 18,618 | 18,091 |
| Social sciences: | | | | | | | | |
| Total, all sources | 48,476 | 50,631 | 54,257 | 55,620 | 56,272 | 56,230 | 56,912 | 55,473 |
| Federal, total | 2,954 | 3,184 | 3,410 | 3,491 | 3,529 | 3,523 | 3,247 | 3,190 |
| Dept. of Defense | 221 | 247 | 247 | 273 | 267 | 281 | 225 | 203 |
| Dept. of HHS, total | 314 | 369 | 421 | 417 | 423 | 474 | 327 | 351 |
| NIH | 210 | 268 | 297 | 303 | 286 | 321 | 266 | 284 |
| Other HHS | 104 | 101 | 124 | 114 | 137 | 153 | 61 | 67 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 52 | 65 |
| NSF | 468 | 560 | 645 | 645 | 675 | 675 | 746 | 687 |
| USDA | 322 | 379 | 392 | 393 | 434 | 428 | 378 | 389 |
| All other Federal | 1,629 | 1,629 | 1,705 | 1,763 | 1,730 | 1,665 | 1,519 | 1,495 |
| Institutional support | 23,431 | 23,842 | 24,439 | 24,645 | 24,709 | 25,100 | 25,444 | 25,079 |
| Other outside support, total | 3,193 | 3,288 | 3,614 | 3,561 | 3,729 | 3,464 | 3,543 | 3,351 |
| All other U.S. | 1,707 | 1,833 | 2,107 | 2,235 | 2,353 | 2,102 | 2,178 | 2,082 |
| Foreign | 1,486 | 1,455 | 1,507 | 1,326 | 1,376 | 1,362 | 1,365 | 1,269 |
| Self-support | 18,898 | 20,317 | 22,794 | 23,923 | 24,305 | 24,143 | 24,678 | 23,853 |
| Engineering, total: | | | | | | | | |
| Total, all sources | 65,977 | 71,034 | 74,426 | 73,797 | 71,566 | 67,774 | 65,851 | 65,594 |
| Federal, total | 14,672 | 15,982 | 16,564 | 16,890 | 16,851 | 16,361 | 15,833 | 15,838 |
| Dept. of Defense | 4,713 | 4,871 | 4,953 | 5,139 | 4,717 | 4,810 | 4,538 | 4,792 |
| Dept. of HHS, total | 760 | 810 | 901 | 924 | 906 | 918 | 835 | 908 |
| NIH | 661 | 724 | 798 | 794 | 782 | 768 | 731 | 761 |
| Other HHS | 99 | 86 | 103 | 130 | 124 | 150 | 104 | 147 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 1,093 | 1,261 |
| NSF | 3,882 | 4,297 | 4,605 | 4,561 | 4,764 | 4,580 | 4,593 | 4,582 |
| USDA | 231 | 274 | 358 | 306 | 345 | 341 | 291 | 214 |
| All other Federal | 5,086 | 5,730 | 5,747 | 5,960 | 6,119 | 5,712 | 4,483 | 4,081 |
| Institutional support | 23,311 | 24,616 | 24,926 | 24,959 | 24,565 | 23,832 | 23,392 | 23,793 |
| Other outside support, total | 10,381 | 10,626 | 10,550 | 9,717 | 9,378 | 9,107 | 8,874 | 9,018 |
| All other U.S. | 8,375 | 8,536 | 8,519 | 8,073 | 7,766 | 7,452 | 7,337 | 7,595 |
| Foreign | 2,006 | 2,090 | 2,031 | 1,644 | 1,612 | 1,655 | 1,537 | 1,423 |
| Self-support | 17,613 | 19,810 | 22,386 | 22,231 | 20,772 | 18,474 | 17,752 | 16,945 |

See explanatory information, if any, and SOURCE at end of table.

**Table 23. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and source of support: 1990-97**

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Chemical engineering: | | | | | | | | |
| Total, all sources | 5,443 | 5,788 | 5,946 | 6,041 | 6,105 | 5,957 | 5,909 | 5,784 |
| Federal, total | 1,529 | 1,598 | 1,654 | 1,748 | 1,716 | 1,752 | 1,786 | 1,644 |
| Dept. of Defense | 98 | 134 | 123 | 139 | 128 | 164 | 169 | 167 |
| Dept. of HHS, total | 121 | 132 | 166 | 141 | 173 | 163 | 162 | 137 |
| NIH | 119 | 128 | 146 | 119 | 143 | 136 | 148 | 121 |
| Other HHS | 2 | 4 | 20 | 22 | 30 | 27 | 14 | 16 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 91 | 80 |
| NSF | 679 | 664 | 699 | 730 | 749 | 759 | 777 | 707 |
| USDA | 27 | 16 | 38 | 52 | 54 | 66 | 34 | 25 |
| All other Federal | 604 | 652 | 628 | 686 | 612 | 600 | 553 | 528 |
| Institutional support | 2,105 | 2,282 | 2,308 | 2,340 | 2,420 | 2,278 | 2,154 | 2,233 |
| Other outside support, total | 1,241 | 1,228 | 1,170 | 1,059 | 1,145 | 1,080 | 1,113 | 1,128 |
| All other U.S. | 1,142 | 1,111 | 1,072 | 960 | 1,041 | 942 | 957 | 948 |
| Foreign | 99 | 117 | 98 | 99 | 104 | 138 | 156 | 180 |
| Self-support | 568 | 680 | 814 | 894 | 824 | 847 | 856 | 779 |
| Civil engineering: | | | | | | | | |
| Total, all sources | 10,128 | 11,328 | 12,454 | 12,458 | 12,641 | 12,248 | 11,791 | 11,259 |
| Federal, total | 1,467 | 1,752 | 2,028 | 1,982 | 2,090 | 1,970 | 1,886 | 1,795 |
| Dept. of Defense | 235 | 273 | 349 | 328 | 321 | 290 | 215 | 232 |
| Dept. of HHS, total | 15 | 35 | 43 | 38 | 45 | 41 | 39 | 47 |
| NIH | 11 | 31 | 38 | 30 | 37 | 31 | 33 | 41 |
| Other HHS | 4 | 4 | 5 | 8 | 8 | 10 | 6 | 6 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 117 | 121 |
| NSF | 428 | 498 | 532 | 522 | 587 | 530 | 534 | 521 |
| USDA | 36 | 51 | 80 | 63 | 65 | 53 | 70 | 40 |
| All other Federal | 753 | 895 | 1,024 | 1,031 | 1,072 | 1,056 | 911 | 834 |
| Institutional support | 3,913 | 4,204 | 4,391 | 4,579 | 4,742 | 4,874 | 4,754 | 4,699 |
| Other outside support, total | 1,256 | 1,339 | 1,477 | 1,267 | 1,233 | 1,163 | 1,154 | 1,082 |
| All other U.S. | 826 | 918 | 1,031 | 972 | 942 | 875 | 911 | 862 |
| Foreign | 430 | 421 | 446 | 295 | 291 | 288 | 243 | 220 |
| Self-support | 3,492 | 4,033 | 4,558 | 4,630 | 4,576 | 4,241 | 3,997 | 3,683 |
| Electrical engineering: | | | | | | | | |
| Total, all sources | 18,675 | 19,904 | 20,996 | 20,370 | 19,412 | 18,187 | 17,989 | 18,926 |
| Federal, total | 3,571 | 3,866 | 4,061 | 4,106 | 4,082 | 4,057 | 3,985 | 4,395 |
| Dept. of Defense | 1,646 | 1,644 | 1,700 | 1,764 | 1,664 | 1,706 | 1,651 | 1,968 |
| Dept. of HHS, total | 77 | 85 | 90 | 103 | 100 | 113 | 93 | 113 |
| NIH | 55 | 76 | 81 | 86 | 83 | 84 | 71 | 68 |
| Other HHS | 22 | 9 | 9 | 17 | 17 | 29 | 22 | 45 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 173 | 229 |
| NSF | 1,133 | 1,278 | 1,388 | 1,285 | 1,343 | 1,325 | 1,319 | 1,329 |
| USDA | 16 | 18 | 24 | 11 | 24 | 34 | 13 | 15 |
| All other Federal | 699 | 841 | 859 | 943 | 951 | 879 | 736 | 741 |
| Institutional support | 6,355 | 6,640 | 6,856 | 6,726 | 6,407 | 6,245 | 6,391 | 6,733 |
| Other outside support, total | 2,969 | 3,024 | 2,953 | 2,773 | 2,620 | 2,591 | 2,648 | 2,788 |
| All other U.S. | 2,443 | 2,492 | 2,450 | 2,336 | 2,218 | 2,162 | 2,263 | 2,451 |
| Foreign | 526 | 532 | 503 | 437 | 402 | 429 | 385 | 337 |
| Self-support | 5,780 | 6,374 | 7,126 | 6,765 | 6,303 | 5,294 | 4,965 | 5,010 |
| Industrial engineering: | | | | | | | | |
| Total, all sources | 4,770 | 5,598 | 6,081 | 5,902 | 5,910 | 5,342 | 5,128 | 5,071 |
| Federal, total | 611 | 705 | 650 | 647 | 637 | 657 | 644 | 603 |
| Dept. of Defense | 299 | 281 | 267 | 249 | 178 | 189 | 209 | 193 |
| Dept. of HHS, total | 60 | 52 | 53 | 78 | 50 | 54 | 49 | 36 |
| NIH | 27 | 16 | 22 | 36 | 28 | 27 | 27 | 30 |
| Other HHS | 33 | 36 | 31 | 42 | 22 | 27 | 22 | 6 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 27 | 23 |
| NSF | 129 | 188 | 165 | 173 | 215 | 173 | 171 | 145 |
| USDA | 1 | 5 | 5 | 3 | 1 | 0 | 1 | 1 |
| All other Federal | 122 | 179 | 160 | 144 | 193 | 241 | 187 | 205 |
| Institutional support | 1,686 | 1,858 | 1,878 | 1,949 | 1,889 | 1,840 | 1,782 | 1,697 |
| Other outside support, total | 571 | 496 | 568 | 493 | 551 | 498 | 461 | 501 |
| All other U.S. | 415 | 362 | 430 | 404 | 458 | 420 | 355 | 404 |
| Foreign | 156 | 134 | 138 | 89 | 93 | 78 | 106 | 97 |
| Self-support | 1,902 | 2,539 | 2,985 | 2,813 | 2,833 | 2,347 | 2,241 | 2,270 |

See explanatory information, if any, and SOURCE at end of table.

**Table 23. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and source of support: 1990-97**

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mechanical engineering: | | | | | | | | |
| Total, all sources | 10,867 | 11,687 | 12,383 | 12,395 | 11,875 | 11,128 | 10,690 | 10,432 |
| Federal, total | 2,532 | 2,730 | 2,790 | 2,999 | 2,946 | 2,777 | 2,602 | 2,612 |
| Dept. of Defense | 751 | 738 | 730 | 797 | 782 | 823 | 739 | 757 |
| Dept. of HHS, total | 69 | 71 | 87 | 86 | 80 | 93 | 76 | 109 |
| NIH | 68 | 58 | 77 | 70 | 71 | 82 | 63 | 70 |
| Other HHS | 1 | 13 | 10 | 16 | 9 | 11 | 13 | 39 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 210 | 291 |
| NSF | 639 | 732 | 786 | 812 | 800 | 743 | 770 | 836 |
| USDA | 26 | 29 | 26 | 9 | 10 | 4 | 13 | 12 |
| All other Federal | 1,047 | 1,160 | 1,161 | 1,295 | 1,274 | 1,114 | 794 | 607 |
| Institutional support | 4,043 | 4,287 | 4,400 | 4,231 | 4,086 | 3,909 | 3,954 | 3,933 |
| Other outside support, total | 1,599 | 1,686 | 1,618 | 1,561 | 1,573 | 1,601 | 1,459 | 1,457 |
| All other U.S. | 1,383 | 1,415 | 1,401 | 1,391 | 1,333 | 1,347 | 1,250 | 1,283 |
| Foreign | 216 | 271 | 217 | 170 | 240 | 254 | 209 | 174 |
| Self-support | 2,693 | 2,984 | 3,575 | 3,604 | 3,270 | 2,841 | 2,675 | 2,430 |
| Other engineering: | | | | | | | | |
| Total, all sources | 16,094 | 16,729 | 16,566 | 16,631 | 15,623 | 14,912 | 14,344 | 14,122 |
| Federal, total | 4,962 | 5,331 | 5,381 | 5,408 | 5,380 | 5,148 | 4,930 | 4,789 |
| Dept. of Defense | 1,684 | 1,801 | 1,784 | 1,862 | 1,644 | 1,638 | 1,555 | 1,475 |
| Dept. of HHS, total | 418 | 435 | 462 | 478 | 458 | 454 | 416 | 466 |
| NIH | 381 | 415 | 434 | 453 | 420 | 408 | 389 | 431 |
| Other HHS | 37 | 20 | 28 | 25 | 38 | 46 | 27 | 35 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 475 | 517 |
| NSF | 874 | 937 | 1,035 | 1,039 | 1,070 | 1,050 | 1,022 | 1,044 |
| USDA | 125 | 155 | 185 | 168 | 191 | 184 | 160 | 121 |
| All other Federal | 1,861 | 2,003 | 1,915 | 1,861 | 2,017 | 1,822 | 1,302 | 1,166 |
| Institutional support | 5,209 | 5,345 | 5,093 | 5,134 | 5,021 | 4,686 | 4,357 | 4,498 |
| Other outside support, total | 2,745 | 2,853 | 2,764 | 2,564 | 2,256 | 2,174 | 2,039 | 2,062 |
| All other U.S. | 2,166 | 2,238 | 2,135 | 2,010 | 1,774 | 1,706 | 1,601 | 1,647 |
| Foreign | 579 | 615 | 629 | 554 | 482 | 468 | 438 | 415 |
| Self-support | 3,178 | 3,200 | 3,328 | 3,525 | 2,966 | 2,904 | 3,018 | 2,773 |
| Total, health fields: | | | | | | | | |
| Total, all sources | 27,431 | 29,866 | 32,099 | 35,649 | 39,081 | 41,895 | 44,259 | 46,230 |
| Federal, total | 6,771 | 6,968 | 7,328 | 7,295 | 7,777 | 7,902 | 7,395 | 7,651 |
| Dept. of Defense | 376 | 417 | 399 | 435 | 382 | 333 | 331 | 320 |
| Dept. of HHS, total | 4,928 | 5,021 | 5,154 | 5,211 | 5,532 | 5,677 | 5,457 | 5,648 |
| NIH | 1,629 | 1,846 | 2,050 | 2,266 | 2,345 | 2,439 | 2,447 | 2,730 |
| Other HHS | 3,299 | 3,175 | 3,104 | 2,945 | 3,187 | 3,238 | 3,010 | 2,918 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 14 | 21 |
| NSF | 49 | 56 | 70 | 89 | 117 | 100 | 82 | 98 |
| USDA | 58 | 60 | 69 | 78 | 74 | 55 | 50 | 42 |
| All other Federal | 1,360 | 1,414 | 1,636 | 1,482 | 1,672 | 1,737 | 1,461 | 1,522 |
| Institutional support | 7,171 | 7,480 | 7,647 | 8,120 | 8,461 | 8,980 | 9,371 | 9,660 |
| Other outside support, total | 1,370 | 1,521 | 1,694 | 1,743 | 1,865 | 2,026 | 2,025 | 1,993 |
| All other U.S. | 905 | 1,060 | 1,234 | 1,300 | 1,407 | 1,496 | 1,595 | 1,506 |
| Foreign | 465 | 461 | 460 | 443 | 458 | 530 | 430 | 487 |
| Self-support | 12,119 | 13,897 | 15,430 | 18,491 | 20,978 | 22,987 | 25,468 | 26,926 |

¹ Data for NASA were not collected separately prior to 1996.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 24. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and mechanism of support: 1990-97**

Page 1 of 2

| Field and mechanism support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields: | | | | | | | | |
| Total, all types | 292,830 | 307,040 | 322,609 | 329,679 | 332,129 | 329,148 | 328,453 | 326,842 |
| Fellowships | 25,254 | 26,695 | 28,630 | 29,132 | 28,894 | 28,891 | 28,863 | 28,890 |
| Traineeships | 15,212 | 15,417 | 15,375 | 15,458 | 15,692 | 15,953 | 15,488 | 14,479 |
| Research assistantships | 80,746 | 85,175 | 88,030 | 90,156 | 92,011 | 89,950 | 87,695 | 88,045 |
| Teaching assistantships | 64,965 | 65,229 | 65,725 | 67,315 | 66,869 | 65,997 | 65,789 | 65,199 |
| Other types of support | 106,653 | 114,524 | 124,849 | 127,618 | 128,663 | 128,357 | 130,618 | 130,229 |
| Total, science and engineering: | | | | | | | | |
| Total, all types | 265,399 | 277,174 | 290,510 | 294,030 | 293,048 | 287,253 | 284,194 | 280,612 |
| Fellowships | 23,522 | 24,983 | 26,750 | 27,142 | 26,774 | 26,708 | 26,389 | 26,456 |
| Traineeships | 10,064 | 10,466 | 10,051 | 10,296 | 10,344 | 10,543 | 10,338 | 9,667 |
| Research assistantships | 77,342 | 81,214 | 84,076 | 86,202 | 87,633 | 85,347 | 83,318 | 83,207 |
| Teaching assistantships | 62,597 | 62,746 | 63,221 | 64,792 | 64,068 | 63,164 | 62,768 | 62,052 |
| Other types of support | 91,874 | 97,765 | 106,412 | 105,598 | 104,229 | 101,491 | 101,381 | 99,230 |
| Sciences, total: | | | | | | | | |
| Total, all types | 199,422 | 206,140 | 216,084 | 220,233 | 221,482 | 219,479 | 218,343 | 215,018 |
| Fellowships | 18,317 | 19,214 | 20,626 | 20,905 | 20,718 | 20,695 | 20,720 | 20,700 |
| Traineeships | 9,047 | 9,351 | 9,042 | 9,234 | 9,411 | 9,534 | 9,472 | 8,803 |
| Research assistantships | 52,043 | 54,438 | 56,536 | 58,271 | 59,551 | 58,303 | 56,805 | 56,333 |
| Teaching assistantships | 51,601 | 51,482 | 52,274 | 53,624 | 53,301 | 53,004 | 52,759 | 51,900 |
| Other types of support | 68,414 | 71,655 | 77,606 | 78,199 | 78,501 | 77,943 | 78,587 | 77,282 |
| Physical sciences: | | | | | | | | |
| Total, all types | 29,485 | 30,117 | 30,673 | 30,611 | 30,043 | 28,902 | 27,956 | 26,892 |
| Fellowships | 2,254 | 2,660 | 2,837 | 2,729 | 2,430 | 2,351 | 2,203 | 2,197 |
| Traineeships | 666 | 793 | 707 | 757 | 681 | 677 | 650 | 531 |
| Research assistantships | 12,138 | 12,229 | 12,445 | 12,293 | 12,378 | 11,848 | 11,527 | 11,321 |
| Teaching assistantships | 11,835 | 11,696 | 11,848 | 12,129 | 11,893 | 11,696 | 11,247 | 10,819 |
| Other types of support | 2,592 | 2,739 | 2,836 | 2,703 | 2,661 | 2,330 | 2,329 | 2,024 |
| Earth, atmospheric, & ocean sciences: | | | | | | | | |
| Total, all types | 10,244 | 10,373 | 10,986 | 11,367 | 11,470 | 11,275 | 10,826 | 10,550 |
| Fellowships | 797 | 896 | 894 | 907 | 865 | 896 | 870 | 820 |
| Traineeships | 84 | 93 | 120 | 153 | 140 | 131 | 131 | 92 |
| Research assistantships | 4,189 | 4,387 | 4,615 | 4,729 | 4,857 | 4,659 | 4,303 | 4,275 |
| Teaching assistantships | 2,389 | 2,345 | 2,450 | 2,519 | 2,484 | 2,508 | 2,530 | 2,643 |
| Other types of support | 2,785 | 2,652 | 2,907 | 3,059 | 3,124 | 3,081 | 2,992 | 2,720 |
| Mathematical sciences: | | | | | | | | |
| Total, all types | 13,865 | 14,256 | 14,679 | 14,530 | 14,226 | 13,410 | 12,966 | 12,153 |
| Fellowships | 1,126 | 1,365 | 1,416 | 1,363 | 1,216 | 1,297 | 1,285 | 1,198 |
| Traineeships | 181 | 207 | 220 | 258 | 244 | 222 | 179 | 179 |
| Research assistantships | 1,335 | 1,356 | 1,410 | 1,436 | 1,534 | 1,451 | 1,296 | 1,407 |
| Teaching assistantships | 7,871 | 7,766 | 7,739 | 7,586 | 7,634 | 7,293 | 7,127 | 6,700 |
| Other types of support | 3,352 | 3,562 | 3,894 | 3,887 | 3,598 | 3,147 | 3,079 | 2,669 |
| Computer sciences: | | | | | | | | |
| Total, all types | 16,689 | 16,516 | 17,486 | 17,374 | 16,674 | 16,490 | 17,173 | 18,320 |
| Fellowships | 955 | 901 | 884 | 808 | 908 | 911 | 930 | 942 |
| Traineeships | 148 | 135 | 148 | 229 | 281 | 227 | 210 | 224 |
| Research assistantships | 3,334 | 3,565 | 3,682 | 3,802 | 3,903 | 3,918 | 3,978 | 4,035 |
| Teaching assistantships | 3,685 | 3,503 | 3,548 | 3,594 | 3,374 | 3,373 | 3,381 | 3,639 |
| Other types of support | 8,567 | 8,412 | 9,224 | 8,941 | 8,208 | 8,061 | 8,674 | 9,480 |
| Agricultural sciences: | | | | | | | | |
| Total, all types | 9,100 | 9,289 | 9,452 | 9,468 | 9,492 | 9,620 | 9,298 | 9,110 |
| Fellowships | 547 | 491 | 505 | 532 | 522 | 492 | 455 | 470 |
| Traineeships | 113 | 130 | 130 | 171 | 132 | 146 | 137 | 129 |
| Research assistantships | 4,755 | 5,002 | 5,174 | 5,239 | 5,385 | 5,377 | 5,172 | 5,088 |
| Teaching assistantships | 793 | 782 | 791 | 887 | 886 | 939 | 943 | 961 |
| Other types of support | 2,892 | 2,884 | 2,852 | 2,639 | 2,567 | 2,666 | 2,591 | 2,462 |
| Biological sciences: | | | | | | | | |
| Total, all types | 40,945 | 42,700 | 44,389 | 46,481 | 48,017 | 48,330 | 47,744 | 46,998 |
| Fellowships | 4,674 | 4,688 | 5,058 | 5,234 | 5,523 | 5,386 | 5,284 | 5,481 |
| Traineeships | 4,871 | 5,094 | 4,830 | 4,918 | 5,227 | 5,302 | 5,342 | 5,052 |
| Research assistantships | 15,764 | 16,846 | 17,627 | 18,853 | 19,438 | 19,249 | 18,676 | 18,648 |
| Teaching assistantships | 8,702 | 8,797 | 8,947 | 9,163 | 9,339 | 9,311 | 9,361 | 9,088 |
| Other types of support | 6,934 | 7,275 | 7,927 | 8,313 | 8,490 | 9,082 | 9,081 | 8,729 |
| Psychology: | | | | | | | | |
| Total, all types | 30,618 | 32,258 | 34,162 | 34,782 | 35,288 | 35,222 | 35,468 | 35,522 |
| Fellowships | 1,641 | 1,691 | 1,858 | 1,930 | 1,847 | 1,844 | 1,982 | 2,107 |
| Traineeships | 1,129 | 1,194 | 1,173 | 1,113 | 1,044 | 1,081 | 1,166 | 1,063 |
| Research assistantships | 4,051 | 4,235 | 4,304 | 4,557 | 4,655 | 4,585 | 4,763 | 4,839 |
| Teaching assistantships | 5,730 | 5,750 | 5,769 | 6,253 | 6,058 | 6,112 | 6,148 | 6,148 |
| Other types of support | 18,067 | 19,388 | 21,058 | 20,929 | 21,684 | 21,600 | 21,409 | 21,365 |

See explanatory information, if any, and SOURCE at end of table.

**Table 24. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and mechanism of support: 1990-97**

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| Field and mechanism support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Social sciences: | | | | | | | | |
| Total, all types | 48,476 | 50,631 | 54,257 | 55,620 | 56,272 | 56,230 | 56,912 | 55,473 |
| Fellowships | 6,323 | 6,522 | 7,174 | 7,402 | 7,407 | 7,518 | 7,711 | 7,485 |
| Traineeships | 1,855 | 1,705 | 1,714 | 1,635 | 1,662 | 1,748 | 1,657 | 1,533 |
| Research assistantships | 6,477 | 6,818 | 7,279 | 7,362 | 7,401 | 7,216 | 7,090 | 6,720 |
| Teaching assistantships | 10,596 | 10,843 | 11,182 | 11,493 | 11,633 | 11,772 | 12,022 | 11,902 |
| Other types of support | 23,225 | 24,743 | 26,908 | 27,728 | 28,169 | 27,976 | 28,432 | 27,833 |
| Engineering, total: | | | | | | | | |
| Total, all types | 65,977 | 71,034 | 74,426 | 73,797 | 71,566 | 67,774 | 65,851 | 65,594 |
| Fellowships | 5,205 | 5,769 | 6,124 | 6,237 | 6,056 | 6,013 | 5,669 | 5,756 |
| Traineeships | 1,017 | 1,115 | 1,009 | 1,062 | 933 | 1,009 | 866 | 864 |
| Research assistantships | 25,299 | 26,776 | 27,540 | 27,931 | 28,082 | 27,044 | 26,513 | 26,874 |
| Teaching assistantships | 10,996 | 11,264 | 10,947 | 11,168 | 10,767 | 10,160 | 10,009 | 10,152 |
| Other types of support | 23,460 | 26,110 | 28,806 | 27,399 | 25,728 | 23,548 | 22,794 | 21,948 |
| Chemical engineering: | | | | | | | | |
| Total, all types | 5,443 | 5,788 | 5,946 | 6,041 | 6,105 | 5,957 | 5,909 | 5,784 |
| Fellowships | 744 | 691 | 738 | 719 | 705 | 791 | 763 | 831 |
| Traineeships | 148 | 173 | 153 | 123 | 98 | 105 | 93 | 94 |
| Research assistantships | 2,839 | 2,987 | 3,012 | 3,120 | 3,270 | 3,104 | 3,052 | 2,969 |
| Teaching assistantships | 941 | 1,006 | 1,021 | 1,018 | 947 | 909 | 920 | 922 |
| Other types of support | 771 | 931 | 1,022 | 1,061 | 1,085 | 1,048 | 1,081 | 968 |
| Civil engineering: | | | | | | | | |
| Total, all types | 10,128 | 11,328 | 12,454 | 12,458 | 12,641 | 12,248 | 11,791 | 11,259 |
| Fellowships | 620 | 677 | 802 | 904 | 888 | 918 | 884 | 849 |
| Traineeships | 211 | 214 | 219 | 210 | 191 | 196 | 178 | 180 |
| Research assistantships | 3,115 | 3,565 | 3,936 | 4,048 | 4,254 | 4,225 | 4,124 | 3,971 |
| Teaching assistantships | 1,652 | 1,667 | 1,648 | 1,818 | 1,901 | 1,846 | 1,788 | 1,763 |
| Other types of support | 4,530 | 5,205 | 5,849 | 5,478 | 5,407 | 5,063 | 4,817 | 4,496 |
| Electrical engineering: | | | | | | | | |
| Total, all types | 18,675 | 19,904 | 20,996 | 20,370 | 19,412 | 18,187 | 17,989 | 18,926 |
| Fellowships | 1,262 | 1,424 | 1,502 | 1,475 | 1,503 | 1,446 | 1,388 | 1,390 |
| Traineeships | 157 | 187 | 162 | 191 | 158 | 156 | 152 | 122 |
| Research assistantships | 6,224 | 6,556 | 6,867 | 6,925 | 6,855 | 6,694 | 6,920 | 7,486 |
| Teaching assistantships | 3,459 | 3,487 | 3,451 | 3,435 | 3,236 | 3,106 | 3,163 | 3,345 |
| Other types of support | 7,573 | 8,250 | 9,014 | 8,344 | 7,660 | 6,785 | 6,366 | 6,583 |
| Industrial engineering: | | | | | | | | |
| Total, all types | 4,770 | 5,598 | 6,081 | 5,902 | 5,910 | 5,342 | 5,128 | 5,071 |
| Fellowships | 250 | 260 | 269 | 281 | 270 | 299 | 234 | 239 |
| Traineeships | 36 | 32 | 27 | 48 | 32 | 37 | 14 | 17 |
| Research assistantships | 1,130 | 1,249 | 1,235 | 1,271 | 1,342 | 1,339 | 1,282 | 1,264 |
| Teaching assistantships | 854 | 893 | 891 | 935 | 933 | 823 | 784 | 773 |
| Other types of support | 2,500 | 3,164 | 3,659 | 3,367 | 3,333 | 2,844 | 2,814 | 2,778 |
| Mechanical engineering: | | | | | | | | |
| Total, all types | 10,867 | 11,687 | 12,383 | 12,395 | 11,875 | 11,128 | 10,690 | 10,432 |
| Fellowships | 715 | 868 | 909 | 926 | 943 | 944 | 907 | 835 |
| Traineeships | 183 | 179 | 168 | 211 | 187 | 187 | 165 | 215 |
| Research assistantships | 4,306 | 4,630 | 4,731 | 4,787 | 4,688 | 4,413 | 4,272 | 4,355 |
| Teaching assistantships | 2,256 | 2,205 | 2,185 | 2,255 | 2,069 | 1,930 | 1,860 | 1,903 |
| Other types of support | 3,407 | 3,805 | 4,390 | 4,216 | 3,988 | 3,654 | 3,486 | 3,124 |
| Other engineering: | | | | | | | | |
| Total, all types | 16,094 | 16,729 | 16,566 | 16,631 | 15,623 | 14,912 | 14,344 | 14,122 |
| Fellowships | 1,614 | 1,849 | 1,904 | 1,932 | 1,747 | 1,615 | 1,493 | 1,612 |
| Traineeships | 282 | 330 | 280 | 279 | 267 | 328 | 264 | 236 |
| Research assistantships | 7,685 | 7,789 | 7,759 | 7,780 | 7,673 | 7,269 | 6,863 | 6,829 |
| Teaching assistantships | 1,834 | 2,006 | 1,751 | 1,707 | 1,681 | 1,546 | 1,494 | 1,446 |
| Other types of support | 4,679 | 4,755 | 4,872 | 4,933 | 4,255 | 4,154 | 4,230 | 3,999 |
| Total, health fields: | | | | | | | | |
| Total, all types | 27,431 | 29,866 | 32,099 | 35,649 | 39,081 | 41,895 | 44,259 | 46,230 |
| Fellowships | 1,732 | 1,712 | 1,880 | 1,990 | 2,120 | 2,183 | 2,474 | 2,434 |
| Traineeships | 5,148 | 4,951 | 5,324 | 5,162 | 5,348 | 5,410 | 5,150 | 4,812 |
| Research assistantships | 3,404 | 3,961 | 3,954 | 3,954 | 4,378 | 4,603 | 4,377 | 4,838 |
| Teaching assistantships | 2,368 | 2,483 | 2,504 | 2,523 | 2,801 | 2,833 | 3,021 | 3,147 |
| Other types of support | 14,779 | 16,759 | 18,437 | 22,020 | 24,434 | 26,866 | 29,237 | 30,999 |

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 25. Full-time graduate students in science and engineering fields in all institutions,
by mechanism and source of support: 1990-97**

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| Mechanism and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all types: | | | | | | | | |
| Total, all sources | 265,399 | 277,174 | 290,510 | 294,030 | 293,048 | 287,253 | 284,194 | 280,612 |
| Federal, total | 52,501 | 56,046 | 58,298 | 60,393 | 60,789 | 59,408 | 57,857 | 56,689 |
| Dept. of Defense | 8,492 | 8,711 | 8,848 | 9,315 | 9,067 | 9,006 | 8,471 | 8,714 |
| Dept. of HHS, total | 14,594 | 15,472 | 16,274 | 16,827 | 17,148 | 17,110 | 16,914 | 16,736 |
| NIH | 13,367 | 14,172 | 15,043 | 15,871 | 15,950 | 15,672 | 15,485 | 15,286 |
| Other HHS | 1,227 | 1,300 | 1,231 | 956 | 1,198 | 1,438 | 1,429 | 1,450 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2,295 | 2,565 |
| NSF | 11,976 | 12,610 | 13,296 | 13,441 | 13,873 | 13,561 | 13,330 | 13,228 |
| USDA | 2,664 | 3,015 | 3,147 | 3,246 | 3,348 | 3,199 | 2,954 | 2,602 |
| All other Federal | 14,775 | 16,238 | 16,733 | 17,564 | 17,353 | 16,532 | 13,893 | 12,844 |
| Institutional support | 115,864 | 117,907 | 120,276 | 120,899 | 120,834 | 120,417 | 119,086 | 119,277 |
| Other outside support, total | 24,765 | 25,549 | 26,075 | 24,971 | 25,390 | 23,926 | 23,379 | 23,192 |
| All other U.S. | 18,699 | 19,367 | 20,075 | 19,933 | 20,130 | 18,909 | 18,559 | 18,848 |
| Foreign | 6,066 | 6,182 | 6,000 | 5,038 | 5,260 | 5,017 | 4,820 | 4,344 |
| Self-support | 72,269 | 77,672 | 85,861 | 87,767 | 86,035 | 83,502 | 83,872 | 81,454 |
| Fellowships: | | | | | | | | |
| Total, all sources | 23,522 | 24,983 | 26,750 | 27,142 | 26,774 | 26,708 | 26,389 | 26,456 |
| Federal, total | 5,846 | 6,910 | 7,222 | 6,998 | 6,360 | 6,364 | 6,434 | 6,255 |
| Dept. of Defense | 579 | 677 | 648 | 627 | 523 | 470 | 508 | 517 |
| Dept. of HHS, total | 748 | 818 | 985 | 1,033 | 1,048 | 1,167 | 1,153 | 1,228 |
| NIH | 672 | 722 | 868 | 919 | 917 | 966 | 974 | 1,002 |
| Other HHS | 76 | 96 | 117 | 114 | 131 | 201 | 179 | 226 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 410 | 373 |
| NSF | 2,079 | 2,233 | 2,354 | 2,267 | 2,275 | 2,323 | 2,451 | 2,310 |
| USDA | 103 | 102 | 113 | 113 | 112 | 136 | 111 | 138 |
| All other Federal | 2,337 | 3,080 | 3,122 | 2,958 | 2,402 | 2,268 | 1,801 | 1,689 |
| Institutional support | 12,070 | 12,314 | 13,409 | 13,980 | 13,928 | 14,299 | 14,402 | 15,233 |
| Other outside support, total | 5,606 | 5,759 | 6,119 | 6,164 | 6,486 | 6,045 | 5,553 | 4,968 |
| All other U.S. | 3,466 | 3,550 | 3,798 | 3,702 | 4,069 | 3,813 | 3,402 | 3,112 |
| Foreign | 2,140 | 2,209 | 2,321 | 2,462 | 2,417 | 2,232 | 2,151 | 1,856 |
| Self-support | N/A |
| Traineeships: | | | | | | | | |
| Total, all sources | 10,064 | 10,466 | 10,051 | 10,296 | 10,344 | 10,543 | 10,338 | 9,667 |
| Federal, total | 4,876 | 5,454 | 5,551 | 5,773 | 5,857 | 5,630 | 5,515 | 5,155 |
| Dept. of Defense | 85 | 116 | 94 | 113 | 122 | 104 | 124 | 108 |
| Dept. of HHS, total | 4,043 | 4,384 | 4,387 | 4,378 | 4,493 | 4,347 | 4,256 | 3,988 |
| NIH | 3,732 | 4,084 | 4,106 | 4,194 | 4,206 | 3,990 | 3,990 | 3,807 |
| Other HHS | 311 | 300 | 281 | 184 | 287 | 357 | 266 | 181 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 67 | 76 |
| NSF | 45 | 80 | 104 | 165 | 258 | 338 | 431 | 383 |
| USDA | 53 | 34 | 28 | 42 | 37 | 18 | 24 | 23 |
| All other Federal | 650 | 840 | 938 | 1,075 | 947 | 823 | 613 | 577 |
| Institutional support | 4,433 | 4,275 | 3,712 | 3,635 | 3,606 | 4,214 | 4,254 | 3,877 |
| Other outside support, total | 755 | 737 | 788 | 888 | 881 | 699 | 569 | 635 |
| All other U.S. | 516 | 552 | 581 | 594 | 660 | 504 | 385 | 484 |
| Foreign | 239 | 185 | 207 | 294 | 221 | 195 | 184 | 151 |
| Self-support | N/A |
| Research assistantships: | | | | | | | | |
| Total, all sources | 77,342 | 81,214 | 84,076 | 86,202 | 87,633 | 85,347 | 83,318 | 83,207 |
| Federal, total | 37,264 | 39,352 | 41,075 | 43,029 | 43,895 | 42,936 | 41,826 | 41,370 |
| Dept. of Defense | 5,382 | 5,452 | 5,703 | 6,204 | 6,177 | 6,261 | 5,965 | 6,326 |
| Dept. of HHS, total | 9,495 | 9,958 | 10,473 | 10,976 | 11,233 | 11,166 | 11,035 | 11,025 |
| NIH | 8,701 | 9,099 | 9,700 | 10,386 | 10,518 | 10,368 | 10,154 | 10,083 |
| Other HHS | 794 | 859 | 773 | 590 | 715 | 798 | 881 | 942 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 1,775 | 2,059 |
| NSF | 9,692 | 10,144 | 10,628 | 10,769 | 11,145 | 10,600 | 10,223 | 10,354 |
| USDA | 2,386 | 2,761 | 2,896 | 2,964 | 3,073 | 2,946 | 2,707 | 2,369 |
| All other Federal | 10,309 | 11,037 | 11,375 | 12,116 | 12,267 | 11,963 | 10,121 | 9,237 |
| Institutional support | 28,381 | 29,426 | 29,953 | 29,900 | 30,639 | 30,152 | 29,175 | 29,311 |
| Other outside support, total | 11,697 | 12,436 | 13,048 | 13,273 | 13,099 | 12,259 | 12,317 | 12,526 |
| All other U.S. | 10,984 | 11,630 | 12,237 | 12,415 | 12,336 | 11,519 | 11,578 | 11,787 |
| Foreign | 713 | 806 | 811 | 858 | 763 | 740 | 739 | 739 |
| Self-support | N/A |

See explanatory information, if any, and SOURCE at end of table.

**Table 25. Full-time graduate students in science and engineering fields in all institutions,
by mechanism and source of support: 1990-97**

Page 2 of 2

| Mechanism and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|------------------------------------|--------|--------|---------|---------|---------|---------|---------|--------|
| Teaching assistantships: | | | | | | | | |
| Total, all sources | 62,597 | 62,746 | 63,221 | 64,792 | 64,068 | 63,164 | 62,768 | 62,052 |
| Federal, total | 554 | 428 | 574 | 776 | 677 | 646 | 741 | 776 |
| Dept. of Defense | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dept. of HHS, total | 95 | 87 | 166 | 162 | 136 | 113 | 180 | 145 |
| NIH | 77 | 74 | 149 | 156 | 127 | 106 | 176 | 115 |
| Other HHS | 18 | 13 | 17 | 6 | 9 | 7 | 4 | 30 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2 | 24 |
| NSF | 84 | 73 | 112 | 140 | 107 | 157 | 117 | 81 |
| USDA | 44 | 33 | 28 | 46 | 49 | 37 | 42 | 30 |
| All other Federal | 331 | 235 | 268 | 428 | 385 | 339 | 400 | 496 |
| Institutional support | 61,534 | 61,810 | 62,106 | 63,432 | 62,781 | 61,980 | 61,405 | 60,693 |
| Other outside support, total | 509 | 508 | 541 | 584 | 610 | 538 | 622 | 583 |
| All other U.S. | 509 | 508 | 541 | 584 | 610 | 538 | 622 | 583 |
| Foreign | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Self-support | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Other types of support: | | | | | | | | |
| Total, all sources | 91,874 | 97,765 | 106,412 | 105,598 | 104,229 | 101,491 | 101,381 | 99,230 |
| Federal, total | 3,961 | 3,902 | 3,876 | 3,817 | 4,000 | 3,832 | 3,341 | 3,133 |
| Dept. of Defense | 2,446 | 2,466 | 2,403 | 2,371 | 2,245 | 2,171 | 1,874 | 1,763 |
| Dept. of HHS, total | 213 | 225 | 263 | 278 | 238 | 317 | 290 | 350 |
| NIH | 185 | 193 | 220 | 216 | 182 | 242 | 191 | 279 |
| Other HHS | 28 | 32 | 43 | 62 | 56 | 75 | 99 | 71 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 41 | 33 |
| NSF | 76 | 80 | 98 | 100 | 88 | 143 | 108 | 100 |
| USDA | 78 | 85 | 82 | 81 | 77 | 62 | 70 | 42 |
| All other Federal | 1,148 | 1,046 | 1,030 | 987 | 1,352 | 1,139 | 958 | 845 |
| Institutional support | 9,446 | 10,082 | 11,096 | 9,952 | 9,880 | 9,772 | 9,850 | 10,163 |
| Other outside support, total | 6,198 | 6,109 | 5,579 | 4,062 | 4,314 | 4,385 | 4,318 | 4,480 |
| All other U.S. | 3,224 | 3,127 | 2,918 | 2,638 | 2,455 | 2,535 | 2,572 | 2,882 |
| Foreign | 2,974 | 2,982 | 2,661 | 1,424 | 1,859 | 1,850 | 1,746 | 1,598 |
| Self-support | 72,269 | 77,672 | 85,861 | 87,767 | 86,035 | 83,502 | 83,872 | 81,454 |

¹ Data for NASA were not collected separately prior to 1996.

KEY: N/A = Not applicable

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 26. Full-time students in graduate school for the first time in science, engineering, and health fields in all institutions, by detailed field: 1990-97

Page 1 of 1

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, all surveyed fields | 87,429 | 93,172 | 95,832 | 92,798 | 92,221 | 89,445 | 88,953 | 88,915 |
| Total, science and engineering fields | 76,575 | 81,458 | 83,134 | 79,313 | 78,056 | 74,384 | 73,479 | 73,513 |
| Sciences, total | 56,492 | 58,914 | 60,890 | 58,975 | 58,287 | 56,310 | 55,472 | 54,694 |
| Physical sciences, total | 6,809 | 7,107 | 6,910 | 6,690 | 6,454 | 6,131 | 6,019 | 6,035 |
| Astronomy | 172 | 153 | 161 | 153 | 164 | 147 | 157 | 125 |
| Chemistry | 3,814 | 4,088 | 3,910 | 3,842 | 3,813 | 3,712 | 3,707 | 3,764 |
| Physics | 2,777 | 2,820 | 2,773 | 2,642 | 2,381 | 2,188 | 2,088 | 2,074 |
| Physical sciences, n.e.c. | 46 | 46 | 66 | 53 | 96 | 84 | 67 | 72 |
| Earth, atmos., & ocean sci., total | 2,694 | 2,909 | 3,018 | 2,987 | 3,012 | 2,805 | 2,640 | 2,693 |
| Atmospheric sciences | 247 | 224 | 235 | 214 | 224 | 198 | 213 | 224 |
| Geosciences | 1,363 | 1,506 | 1,506 | 1,506 | 1,522 | 1,427 | 1,328 | 1,349 |
| Oceanography | 452 | 472 | 501 | 487 | 518 | 418 | 370 | 408 |
| Earth, atmos., & ocean sci., n.e.c. | 632 | 707 | 776 | 780 | 748 | 762 | 729 | 712 |
| Mathematical sciences | 4,269 | 4,350 | 4,443 | 4,044 | 3,963 | 3,578 | 3,450 | 3,302 |
| Computer sciences | 5,378 | 5,558 | 5,477 | 4,741 | 4,754 | 4,782 | 4,908 | 4,990 |
| Agricultural sciences | 2,413 | 2,434 | 2,219 | 2,301 | 2,301 | 2,240 | 2,122 | 2,103 |
| Biological sciences, total | 10,220 | 10,676 | 10,890 | 11,114 | 11,376 | 11,417 | 10,832 | 11,113 |
| Anatomy | 203 | 248 | 231 | 199 | 222 | 252 | 260 | 214 |
| Biochemistry | 1,024 | 1,034 | 1,027 | 1,089 | 1,034 | 981 | 945 | 994 |
| Biology | 2,513 | 2,709 | 2,789 | 2,752 | 2,733 | 2,688 | 2,574 | 2,675 |
| Biometry/epidemiology | 440 | 461 | 603 | 667 | 657 | 738 | 671 | 661 |
| Biophysics | 129 | 157 | 145 | 143 | 149 | 153 | 155 | 133 |
| Botany | 508 | 548 | 548 | 517 | 483 | 443 | 443 | 415 |
| Cell biology | 563 | 608 | 655 | 697 | 761 | 717 | 743 | 800 |
| Ecology | 187 | 190 | 212 | 250 | 285 | 308 | 245 | 247 |
| Entomology/parasitology | 220 | 230 | 216 | 239 | 206 | 184 | 202 | 194 |
| Genetics | 292 | 312 | 296 | 342 | 345 | 344 | 387 | 436 |
| Microbio., immunology, & virology | 955 | 900 | 873 | 845 | 906 | 910 | 848 | 871 |
| Nutrition | 850 | 818 | 764 | 836 | 795 | 854 | 825 | 789 |
| Pathology | 241 | 274 | 268 | 324 | 334 | 296 | 291 | 350 |
| Pharmacology | 538 | 542 | 550 | 513 | 530 | 498 | 420 | 454 |
| Physiology | 645 | 596 | 589 | 616 | 649 | 811 | 725 | 634 |
| Zoology | 407 | 464 | 393 | 379 | 348 | 356 | 327 | 326 |
| Biosciences, n.e.c. | 505 | 585 | 731 | 706 | 939 | 884 | 771 | 920 |
| Psychology | 8,925 | 9,457 | 10,172 | 9,686 | 9,530 | 9,241 | 9,152 | 8,790 |
| Social sciences, total | 15,784 | 16,423 | 17,761 | 17,412 | 16,897 | 16,116 | 16,349 | 15,668 |
| Agricultural economics | 609 | 623 | 683 | 570 | 533 | 492 | 436 | 467 |
| Anthropology (cultural & social) | 1,122 | 1,271 | 1,289 | 1,309 | 1,331 | 1,247 | 1,252 | 1,196 |
| Economics (except agricultural) | 2,822 | 2,893 | 3,007 | 2,837 | 2,793 | 2,605 | 2,466 | 2,364 |
| Geography | 769 | 827 | 886 | 999 | 959 | 836 | 870 | 914 |
| Linguistics | 712 | 675 | 650 | 611 | 612 | 594 | 620 | 552 |
| Political science | 5,775 | 6,121 | 6,714 | 6,567 | 6,131 | 5,916 | 5,842 | 5,261 |
| Sociology | 1,534 | 1,550 | 1,774 | 1,732 | 1,548 | 1,503 | 1,505 | 1,529 |
| Sociology/anthropology | 237 | 160 | 202 | 200 | 229 | 147 | 210 | 171 |
| Social sciences, other | 2,204 | 2,303 | 2,556 | 2,587 | 2,761 | 2,776 | 3,148 | 3,214 |
| Engineering, total | 20,083 | 22,544 | 22,244 | 20,338 | 19,769 | 18,074 | 18,007 | 18,819 |
| Aerospace engineering | 933 | 1,125 | 1,053 | 963 | 793 | 650 | 687 | 735 |
| Agricultural engineering | 205 | 207 | 193 | 161 | 193 | 177 | 183 | 165 |
| Biomedical engineering | 476 | 516 | 599 | 601 | 566 | 592 | 572 | 671 |
| Chemical engineering | 1,404 | 1,517 | 1,480 | 1,520 | 1,461 | 1,418 | 1,470 | 1,463 |
| Civil engineering | 3,692 | 4,210 | 4,331 | 4,019 | 4,194 | 3,825 | 3,845 | 3,745 |
| Electrical engineering | 5,715 | 6,243 | 6,112 | 5,485 | 5,452 | 4,975 | 4,859 | 5,513 |
| Engineering science | 259 | 312 | 347 | 316 | 313 | 275 | 273 | 274 |
| Industrial/manufacturing eng. | 1,719 | 2,045 | 1,926 | 1,647 | 1,721 | 1,523 | 1,591 | 1,529 |
| Mechanical engineering | 3,243 | 3,771 | 3,820 | 3,514 | 3,218 | 2,832 | 2,785 | 2,829 |
| Metallurgical/materials eng. | 934 | 997 | 997 | 871 | 842 | 805 | 777 | 850 |
| Nuclear engineering | 294 | 260 | 283 | 258 | 208 | 187 | 182 | 178 |
| Engineering, other | 1,209 | 1,341 | 1,103 | 983 | 808 | 815 | 783 | 867 |
| Total, health fields | 10,854 | 11,714 | 12,698 | 13,485 | 14,165 | 15,061 | 15,474 | 15,402 |
| Clinical fields | 584 | 787 | 836 | 795 | 780 | 811 | 885 | 1,016 |
| Dental sciences | 332 | 339 | 410 | 421 | 405 | 373 | 386 | 377 |
| Nursing | 2,229 | 2,407 | 2,391 | 2,420 | 2,615 | 2,685 | 2,653 | 2,845 |
| Pharmaceutical sciences | 538 | 557 | 480 | 481 | 489 | 463 | 521 | 489 |
| Preventive medicine/community health | 2,163 | 1,939 | 2,146 | 2,299 | 2,204 | 2,587 | 2,300 | 2,085 |
| Speech pathology/audiology | 2,479 | 2,897 | 3,187 | 3,328 | 3,519 | 3,615 | 3,911 | 3,830 |
| Veterinary sciences | 174 | 152 | 155 | 138 | 158 | 157 | 119 | 128 |
| Other health fields | 2,355 | 2,636 | 3,093 | 3,603 | 3,995 | 4,370 | 4,699 | 4,632 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 27. Graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 1 of 2

| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|---------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, all surveyed fields | 487,104 | 23,534 | 1,968 | 30,399 | 18,107 | 286,410 | 22,994 | 103,692 |
| Total, science and engineering fields | 407,644 | 19,363 | 1,599 | 26,078 | 14,988 | 227,936 | 18,871 | 98,809 |
| Sciences, total | 306,636 | 16,489 | 1,361 | 17,924 | 12,177 | 181,919 | 14,379 | 62,387 |
| Physical sciences, total | 31,108 | 952 | 70 | 1,638 | 784 | 15,749 | 1,001 | 10,914 |
| Astronomy | 778 | 11 | 1 | 39 | 11 | 514 | 17 | 185 |
| Chemistry | 18,794 | 667 | 50 | 1,106 | 525 | 9,711 | 604 | 6,131 |
| Physics | 11,147 | 245 | 18 | 467 | 237 | 5,268 | 373 | 4,539 |
| Physical sciences, n.e.c. | 389 | 29 | 1 | 26 | 11 | 256 | 7 | 59 |
| Earth, atmos., & ocean sci.,total | 14,644 | 206 | 82 | 417 | 407 | 10,486 | 530 | 2,516 |
| Atmospheric sciences | 1,092 | 12 | 2 | 56 | 12 | 657 | 62 | 291 |
| Geosciences | 6,997 | 56 | 38 | 166 | 164 | 5,022 | 258 | 1,293 |
| Oceanography | 2,458 | 26 | 17 | 60 | 113 | 1,683 | 52 | 507 |
| Earth, atmos., & ocean sci., n.e.c. | 4,097 | 112 | 25 | 135 | 118 | 3,124 | 158 | 425 |
| Mathematical sciences, total | 16,759 | 657 | 43 | 1,052 | 426 | 8,382 | 651 | 5,548 |
| Mathematics & applied mathematics | 14,078 | 608 | 40 | 822 | 385 | 7,112 | 599 | 4,512 |
| Statistics | 2,681 | 49 | 3 | 230 | 41 | 1,270 | 52 | 1,036 |
| Computer sciences | 36,010 | 1,303 | 60 | 4,702 | 726 | 14,050 | 2,361 | 12,808 |
| Agricultural sciences | 11,810 | 229 | 62 | 302 | 400 | 7,745 | 347 | 2,725 |
| Biological sciences, total | 57,135 | 2,171 | 198 | 4,478 | 1,983 | 35,041 | 2,098 | 11,166 |
| Anatomy | 1,094 | 44 | 3 | 107 | 15 | 669 | 34 | 222 |
| Biochemistry | 5,093 | 126 | 15 | 567 | 146 | 2,674 | 167 | 1,398 |
| Biology | 14,643 | 765 | 60 | 888 | 692 | 9,433 | 749 | 2,056 |
| Biometry/epidemiology | 2,900 | 160 | 11 | 314 | 137 | 1,641 | 126 | 511 |
| Biophysics | 748 | 17 | 1 | 86 | 17 | 415 | 41 | 171 |
| Botany | 2,402 | 88 | 3 | 76 | 50 | 1,436 | 57 | 692 |
| Cell biology | 3,981 | 104 | 9 | 339 | 110 | 2,482 | 111 | 826 |
| Ecology | 1,659 | 15 | 8 | 47 | 47 | 1,295 | 78 | 169 |
| Entomology/parasitology | 1,161 | 14 | 1 | 41 | 42 | 749 | 24 | 290 |
| Genetics | 1,760 | 37 | 6 | 131 | 42 | 1,092 | 34 | 418 |
| Microbio., immunology, & virology | 4,854 | 194 | 11 | 479 | 172 | 2,872 | 132 | 994 |
| Nutrition | 4,550 | 196 | 12 | 266 | 149 | 2,732 | 90 | 1,105 |
| Pathology | 1,674 | 39 | 11 | 171 | 44 | 1,044 | 71 | 294 |
| Pharmacology | 2,582 | 114 | 5 | 245 | 84 | 1,534 | 52 | 548 |
| Physiology | 2,298 | 101 | 7 | 331 | 65 | 1,283 | 87 | 424 |
| Zoology | 1,730 | 14 | 12 | 55 | 30 | 1,392 | 29 | 198 |
| Biosciences, n.e.c. | 4,006 | 143 | 23 | 335 | 141 | 2,298 | 216 | 850 |
| Psychology, total | 53,142 | 3,641 | 340 | 1,892 | 3,084 | 38,699 | 3,481 | 2,005 |
| Psychology, general | 17,375 | 1,536 | 110 | 609 | 914 | 12,809 | 735 | 662 |
| Clinical psychology | 12,893 | 714 | 108 | 539 | 897 | 9,720 | 586 | 329 |
| Psychology, n.e.c. | 22,874 | 1,391 | 122 | 744 | 1,273 | 16,170 | 2,160 | 1,014 |
| Social sciences, total | 86,028 | 7,330 | 506 | 3,443 | 4,367 | 51,767 | 3,910 | 14,705 |
| Agricultural economics | 2,043 | 65 | 3 | 49 | 53 | 906 | 47 | 920 |
| Anthropology (cultural & social) | 7,558 | 254 | 103 | 236 | 338 | 5,639 | 286 | 702 |
| Economics (except agricultural) | 11,069 | 323 | 16 | 548 | 276 | 4,192 | 343 | 5,371 |
| Geography | 4,287 | 83 | 15 | 119 | 91 | 3,266 | 189 | 524 |
| History and philosophy of science | 443 | 8 | 1 | 21 | 10 | 303 | 33 | 67 |
| Linguistics | 3,008 | 45 | 7 | 204 | 157 | 1,476 | 147 | 972 |
| Political science | 32,039 | 3,696 | 155 | 1,263 | 1,924 | 19,952 | 1,627 | 3,422 |
| Sociology | 9,423 | 1,053 | 76 | 402 | 575 | 5,839 | 310 | 1,168 |
| Sociology/anthropology | 948 | 108 | 10 | 21 | 44 | 606 | 66 | 93 |
| Social sciences, n.e.c. | 15,210 | 1,695 | 120 | 580 | 899 | 9,588 | 862 | 1,466 |
| Engineering, total | 101,008 | 2,874 | 238 | 8,154 | 2,811 | 46,017 | 4,492 | 36,422 |
| Aerospace engineering | 3,083 | 35 | 3 | 153 | 71 | 1,440 | 63 | 3,318 |
| Agricultural engineering | 941 | 21 | 8 | 47 | 17 | 384 | 44 | 420 |
| Biomedical engineering | 2,847 | 83 | 6 | 313 | 56 | 1,567 | 112 | 710 |
| Chemical engineering | 7,247 | 170 | 18 | 512 | 142 | 3,343 | 218 | 2,844 |
| Civil engineering | 17,033 | 443 | 58 | 1,046 | 693 | 9,142 | 627 | 5,024 |
| Electrical engineering | 30,617 | 869 | 46 | 3,481 | 810 | 11,106 | 1,636 | 12,669 |
| Engineering science | 1,647 | 39 | 4 | 202 | 41 | 881 | 32 | 448 |
| Industrial/manufacturing eng. | 11,725 | 478 | 23 | 729 | 390 | 6,199 | 569 | 3,337 |
| Mechanical engineering | 15,044 | 428 | 35 | 947 | 360 | 6,978 | 602 | 5,694 |
| Metallurgical/materials eng. | 4,649 | 109 | 11 | 295 | 86 | 1,994 | 198 | 1,956 |
| Mining engineering | 348 | 0 | 0 | 46 | 7 | 161 | 9 | 125 |
| Nuclear engineering | 868 | 21 | 3 | 38 | 22 | 475 | 6 | 303 |
| Petroleum engineering | 565 | 7 | 1 | 49 | 11 | 106 | 8 | 383 |
| Engineering, n.e.c. | 4,394 | 171 | 22 | 296 | 105 | 2,241 | 368 | 1,191 |

See explanatory information, if any, and SOURCE at end of table.

Table 27. Graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, health fields | 79,460 | 4,171 | 369 | 4,321 | 3,119 | 58,474 | 4,123 | 4,883 |
| Medical fields, total | 15,234 | 1,013 | 83 | 1,616 | 771 | 9,248 | 932 | 1,571 |
| Anesthesiology | 840 | 40 | 6 | 22 | 17 | 600 | 153 | 2 |
| Cardiology | 48 | 0 | 0 | 1 | 6 | 14 | 2 | 25 |
| Oncology/cancer research | 198 | 6 | 2 | 30 | 7 | 118 | 1 | 34 |
| Endocrinology | 43 | 1 | 0 | 5 | 3 | 13 | 0 | 21 |
| Gastroenterology | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Hematology | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| Neurology | 1,696 | 38 | 13 | 176 | 69 | 1,137 | 47 | 216 |
| Obstetrics and gynecology | 18 | 0 | 0 | 9 | 1 | 8 | 0 | 0 |
| Ophthalmology | 33 | 0 | 0 | 12 | 0 | 15 | 0 | 6 |
| Otorhinolaryngology | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| Pediatrics | 434 | 46 | 3 | 31 | 9 | 295 | 21 | 29 |
| Preventive medicine/community health | 10,000 | 791 | 52 | 1,059 | 587 | 5,948 | 471 | 1,092 |
| Psychiatry | 249 | 15 | 2 | 12 | 6 | 192 | 3 | 19 |
| Pulmonary disease | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Radiology | 267 | 5 | 1 | 45 | 10 | 148 | 14 | 44 |
| Surgery | 244 | 15 | 1 | 29 | 1 | 180 | 8 | 10 |
| Clinical medicine, n.e.c. | 1,156 | 56 | 3 | 185 | 55 | 575 | 212 | 70 |
| Other health fields, total | 64,226 | 3,158 | 286 | 2,705 | 2,348 | 49,226 | 3,191 | 3,312 |
| Dental sciences | 1,434 | 25 | 4 | 153 | 57 | 841 | 20 | 334 |
| Nursing | 26,679 | 1,527 | 149 | 967 | 956 | 21,200 | 1,399 | 481 |
| Pharmaceutical sciences | 3,051 | 131 | 3 | 239 | 135 | 1,251 | 126 | 1,166 |
| Speech pathology/audiology | 13,320 | 574 | 53 | 230 | 436 | 11,093 | 584 | 350 |
| Veterinary sciences | 1,175 | 38 | 7 | 26 | 29 | 755 | 14 | 306 |
| Health related, n.e.c. | 18,567 | 863 | 70 | 1,090 | 735 | 14,086 | 1,048 | 675 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 28. Male graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|---------|---|--|-------------------------------|----------|---------------------------|---------------------|----------------------|
| | | Black non- Hispanic | American Indian/ Alaskan Native | Asian/ Pacific Islander | Hispanic | White non- Hispanic | Other or unknown | |
| Total, all surveyed fields | 264,421 | 9,111 | 890 | 17,193 | 8,512 | 143,683 | 12,037 | 72,995 |
| Total, science and engineering fields | 245,615 | 8,344 | 804 | 15,769 | 7,696 | 131,453 | 11,008 | 70,541 |
| Sciences, total | 163,322 | 6,385 | 624 | 9,406 | 5,525 | 93,702 | 7,385 | 40,295 |
| Physical sciences, total | 22,257 | 508 | 46 | 1,045 | 500 | 11,571 | 689 | 7,898 |
| Astronomy | 570 | 6 | 0 | 22 | 9 | 377 | 10 | 146 |
| Chemistry | 12,066 | 319 | 30 | 629 | 289 | 6,490 | 368 | 3,941 |
| Physics | 9,403 | 174 | 15 | 381 | 197 | 4,551 | 309 | 3,776 |
| Physical sciences, n.e.c. | 218 | 9 | 1 | 13 | 5 | 153 | 2 | 35 |
| Earth, atmos., & ocean sci., total | 9,187 | 105 | 47 | 253 | 240 | 6,413 | 332 | 1,797 |
| Atmospheric sciences | 829 | 8 | 1 | 36 | 9 | 540 | 42 | 193 |
| Geosciences | 4,686 | 36 | 21 | 118 | 104 | 3,238 | 166 | 1,003 |
| Oceanography | 1,415 | 11 | 9 | 35 | 57 | 928 | 32 | 343 |
| Earth, atmos., & ocean sci., n.e.c. | 2,257 | 50 | 16 | 64 | 70 | 1,707 | 92 | 258 |
| Mathematical sciences | 10,875 | 348 | 29 | 624 | 256 | 5,335 | 441 | 3,842 |
| Computer sciences | 26,133 | 768 | 43 | 3,050 | 516 | 10,909 | 1,711 | 9,136 |
| Agricultural sciences | 7,277 | 105 | 34 | 164 | 242 | 4,639 | 189 | 1,904 |
| Biological sciences, total | 28,513 | 783 | 91 | 2,170 | 900 | 17,496 | 1,058 | 6,015 |
| Anatomy | 580 | 20 | 1 | 52 | 8 | 338 | 22 | 139 |
| Biochemistry | 2,922 | 63 | 7 | 307 | 70 | 1,587 | 82 | 806 |
| Biology | 7,370 | 282 | 30 | 415 | 325 | 4,864 | 382 | 1,072 |
| Biometry/epidemiology | 1,119 | 56 | 4 | 114 | 40 | 597 | 53 | 255 |
| Biophysics | 532 | 10 | 0 | 65 | 13 | 289 | 29 | 126 |
| Botany | 1,283 | 32 | 0 | 39 | 31 | 743 | 32 | 406 |
| Cell biology | 2,091 | 48 | 2 | 175 | 56 | 1,313 | 60 | 437 |
| Ecology | 867 | 9 | 2 | 21 | 27 | 651 | 50 | 107 |
| Entomology/parasitology | 751 | 6 | 1 | 24 | 26 | 478 | 11 | 205 |
| Genetics | 801 | 13 | 1 | 65 | 17 | 453 | 13 | 239 |
| Microbio., immunology, & virology | 2,431 | 72 | 6 | 222 | 71 | 1,461 | 64 | 535 |
| Nutrition | 1,138 | 38 | 1 | 57 | 30 | 578 | 21 | 413 |
| Pathology | 842 | 9 | 8 | 85 | 19 | 513 | 39 | 169 |
| Pharmacology | 1,362 | 41 | 3 | 116 | 42 | 853 | 25 | 282 |
| Physiology | 1,364 | 30 | 3 | 212 | 33 | 788 | 43 | 255 |
| Zoology | 974 | 5 | 10 | 33 | 17 | 776 | 12 | 121 |
| Biosciences, n.e.c. | 2,086 | 49 | 12 | 168 | 75 | 1,214 | 120 | 448 |
| Psychology | 15,499 | 908 | 118 | 506 | 860 | 11,300 | 1,058 | 749 |
| Social sciences, total | 43,581 | 2,860 | 216 | 1,594 | 2,011 | 26,039 | 1,907 | 8,954 |
| Agricultural economics | 1,355 | 29 | 0 | 27 | 32 | 591 | 30 | 646 |
| Anthropology (cultural & social) | 3,058 | 79 | 44 | 74 | 143 | 2,276 | 114 | 328 |
| Economics (except agricultural) | 7,563 | 196 | 8 | 347 | 185 | 2,842 | 256 | 3,729 |
| Geography | 2,662 | 47 | 10 | 58 | 60 | 2,036 | 124 | 327 |
| Linguistics | 1,034 | 15 | 3 | 62 | 51 | 510 | 44 | 349 |
| Political science | 16,655 | 1,442 | 69 | 611 | 885 | 10,722 | 859 | 2,067 |
| Sociology | 3,592 | 384 | 26 | 143 | 211 | 2,135 | 113 | 580 |
| Sociology/anthropology | 377 | 41 | 6 | 9 | 17 | 236 | 24 | 44 |
| Social sciences, other | 7,285 | 627 | 50 | 263 | 427 | 4,691 | 343 | 884 |
| Engineering, total | 82,293 | 1,959 | 180 | 6,363 | 2,171 | 37,751 | 3,623 | 30,246 |
| Aerospace engineering | 2,712 | 28 | 3 | 137 | 63 | 1,257 | 50 | 1,174 |
| Agricultural engineering | 723 | 14 | 6 | 32 | 12 | 303 | 26 | 330 |
| Biomedical engineering | 2,021 | 34 | 5 | 228 | 39 | 1,095 | 90 | 530 |
| Chemical engineering | 5,538 | 84 | 10 | 361 | 105 | 2,607 | 164 | 2,207 |
| Civil engineering | 12,874 | 299 | 41 | 757 | 487 | 6,832 | 481 | 3,977 |
| Electrical engineering | 26,158 | 676 | 39 | 2,786 | 688 | 9,945 | 1,359 | 10,665 |
| Engineering science | 1,369 | 31 | 3 | 157 | 32 | 739 | 28 | 379 |
| Industrial eng./manufacturing eng. | 9,115 | 261 | 17 | 554 | 275 | 4,798 | 446 | 2,764 |
| Mechanical engineering | 13,265 | 324 | 27 | 804 | 298 | 6,216 | 515 | 5,081 |
| Metallurgical/materials eng. | 3,555 | 66 | 9 | 218 | 52 | 1,510 | 154 | 1,546 |
| Nuclear engineering | 725 | 12 | 2 | 26 | 16 | 404 | 5 | 260 |
| Engineering, other | 4,238 | 130 | 18 | 303 | 104 | 2,045 | 305 | 1,333 |

See explanatory information, if any, and SOURCE at end of table.

**Table 28. Male graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--|-------------------------------|----------|---------------------------|---------------------|----------------------|
| | | Black non- Hispanic | American Indian/ Alaskan Native | Asian/ Pacific Islander | Hispanic | White non- Hispanic | Other or unknown | |
| Total, health fields | 18,806 | 767 | 86 | 1,424 | 816 | 12,230 | 1,029 | 2,454 |
| Clinical fields | 1,527 | 54 | 5 | 199 | 49 | 842 | 247 | 131 |
| Dental sciences | 893 | 13 | 3 | 80 | 35 | 543 | 11 | 208 |
| Nursing | 2,032 | 76 | 18 | 67 | 142 | 1,562 | 90 | 77 |
| Pharmaceutical sciences | 1,526 | 39 | 2 | 107 | 38 | 652 | 65 | 623 |
| Preventive medicine/community health | 4,007 | 229 | 24 | 421 | 210 | 2,270 | 182 | 671 |
| Speech pathology/audiology | 1,075 | 60 | 7 | 26 | 48 | 804 | 49 | 81 |
| Veterinary sciences | 586 | 13 | 1 | 12 | 16 | 341 | 10 | 193 |
| Other health fields | 7,160 | 283 | 26 | 512 | 278 | 5,216 | 375 | 470 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 29. Female graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|---------|---|--|-------------------------------|----------|---------------------------|---------------------|----------------------|
| | | Black non- Hispanic | American Indian/ Alaskan Native | Asian/ Pacific Islander | Hispanic | White non- Hispanic | Other or unknown | |
| Total, all surveyed fields | 222,683 | 14,423 | 1,078 | 13,206 | 9,595 | 142,727 | 10,957 | 30,697 |
| Total, science and engineering fields | 162,029 | 11,019 | 795 | 10,309 | 7,292 | 96,483 | 7,863 | 28,268 |
| Sciences, total | 143,314 | 10,104 | 737 | 8,518 | 6,652 | 88,217 | 6,994 | 22,092 |
| Physical sciences, total | 8,851 | 444 | 24 | 593 | 284 | 4,178 | 312 | 3,016 |
| Astronomy | 208 | 5 | 1 | 17 | 2 | 137 | 7 | 39 |
| Chemistry | 6,728 | 348 | 20 | 477 | 236 | 3,221 | 236 | 2,190 |
| Physics | 1,744 | 71 | 3 | 86 | 40 | 717 | 64 | 763 |
| Physical sciences, n.e.c. | 171 | 20 | 0 | 13 | 6 | 103 | 5 | 24 |
| Earth, atmos., & ocean sci., total | 5,457 | 101 | 35 | 164 | 167 | 4,073 | 198 | 719 |
| Atmospheric sciences | 263 | 4 | 1 | 20 | 3 | 117 | 20 | 98 |
| Geosciences | 2,311 | 20 | 17 | 48 | 60 | 1,784 | 92 | 290 |
| Oceanography | 1,043 | 15 | 8 | 25 | 56 | 755 | 20 | 164 |
| Earth, atmos., & ocean sci., n.e.c. | 1,840 | 62 | 9 | 71 | 48 | 1,417 | 66 | 167 |
| Mathematical sciences | 5,884 | 309 | 14 | 428 | 170 | 3,047 | 210 | 1,706 |
| Computer sciences | 9,877 | 535 | 17 | 1,652 | 210 | 3,141 | 650 | 3,672 |
| Agricultural sciences | 4,533 | 124 | 28 | 138 | 158 | 3,106 | 158 | 821 |
| Biological sciences, total | 28,622 | 1,388 | 107 | 2,308 | 1,083 | 17,545 | 1,040 | 5,151 |
| Anatomy | 514 | 24 | 2 | 55 | 7 | 331 | 12 | 83 |
| Biochemistry | 2,171 | 63 | 8 | 260 | 76 | 1,087 | 85 | 592 |
| Biology | 7,273 | 483 | 30 | 473 | 367 | 4,569 | 367 | 984 |
| Biometry/epidemiology | 1,781 | 104 | 7 | 200 | 97 | 1,044 | 73 | 256 |
| Biophysics | 216 | 7 | 1 | 21 | 4 | 126 | 12 | 45 |
| Botany | 1,119 | 56 | 3 | 37 | 19 | 693 | 25 | 286 |
| Cell biology | 1,890 | 56 | 7 | 164 | 54 | 1,169 | 51 | 389 |
| Ecology | 792 | 6 | 6 | 26 | 20 | 644 | 28 | 62 |
| Entomology/parasitology | 410 | 8 | 0 | 17 | 16 | 271 | 13 | 85 |
| Genetics | 959 | 24 | 5 | 66 | 25 | 639 | 21 | 179 |
| Microbio., immunology, & virology | 2,423 | 122 | 5 | 257 | 101 | 1,411 | 68 | 459 |
| Nutrition | 3,412 | 158 | 11 | 209 | 119 | 2,154 | 69 | 692 |
| Pathology | 832 | 30 | 3 | 86 | 25 | 531 | 32 | 125 |
| Pharmacology | 1,220 | 73 | 2 | 129 | 42 | 681 | 27 | 266 |
| Physiology | 934 | 71 | 4 | 119 | 32 | 495 | 44 | 169 |
| Zoology | 756 | 9 | 2 | 22 | 13 | 616 | 17 | 77 |
| Biosciences, n.e.c. | 1,920 | 94 | 11 | 167 | 66 | 1,084 | 96 | 402 |
| Psychology | 37,643 | 2,733 | 222 | 1,386 | 2,224 | 27,399 | 2,423 | 1,256 |
| Social sciences, total | 42,447 | 4,470 | 290 | 1,849 | 2,356 | 25,728 | 2,003 | 5,751 |
| Agricultural economics | 688 | 36 | 3 | 22 | 21 | 315 | 17 | 274 |
| Anthropology (cultural & social) | 4,500 | 175 | 59 | 162 | 195 | 3,363 | 172 | 374 |
| Economics (except agricultural) | 3,506 | 127 | 8 | 201 | 91 | 1,350 | 87 | 1,642 |
| Geography | 1,625 | 36 | 5 | 61 | 31 | 1,230 | 65 | 197 |
| Linguistics | 1,974 | 30 | 4 | 142 | 106 | 966 | 103 | 623 |
| Political science | 15,384 | 2,254 | 86 | 652 | 1,039 | 9,230 | 768 | 1,355 |
| Sociology | 5,831 | 669 | 50 | 259 | 364 | 3,704 | 197 | 588 |
| Sociology/anthropology | 571 | 67 | 4 | 12 | 27 | 370 | 42 | 49 |
| Social sciences, other | 8,368 | 1,076 | 71 | 338 | 482 | 5,200 | 552 | 649 |
| Engineering, total | 18,715 | 915 | 58 | 1,791 | 640 | 8,266 | 869 | 6,176 |
| Aerospace engineering | 371 | 7 | 0 | 16 | 8 | 183 | 13 | 144 |
| Agricultural engineering | 218 | 7 | 2 | 15 | 5 | 81 | 18 | 90 |
| Biomedical engineering | 826 | 49 | 1 | 85 | 17 | 472 | 22 | 180 |
| Chemical engineering | 1,709 | 86 | 8 | 151 | 37 | 736 | 54 | 637 |
| Civil engineering | 4,159 | 144 | 17 | 289 | 206 | 2,310 | 146 | 1,047 |
| Electrical engineering | 4,459 | 193 | 7 | 695 | 122 | 1,161 | 277 | 2,004 |
| Engineering science | 278 | 8 | 1 | 45 | 9 | 142 | 4 | 69 |
| Industrial eng./manufacturing eng. | 2,610 | 217 | 6 | 175 | 115 | 1,401 | 123 | 573 |
| Mechanical engineering | 1,779 | 104 | 8 | 143 | 62 | 762 | 87 | 613 |
| Metallurgical/materials eng. | 1,094 | 43 | 2 | 77 | 34 | 484 | 44 | 410 |
| Nuclear engineering | 143 | 9 | 1 | 12 | 6 | 71 | 1 | 43 |
| Engineering, other | 1,069 | 48 | 5 | 88 | 19 | 463 | 80 | 366 |

See explanatory information, if any, and SOURCE at end of table.

**Table 29. Female graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--|-------------------------------|----------|---------------------------|---------------------|----------------------|
| | | Black non- Hispanic | American Indian/ Alaskan Native | Asian/ Pacific Islander | Hispanic | White non- Hispanic | Other or unknown | |
| Total, health fields | 60,654 | 3,404 | 283 | 2,897 | 2,303 | 46,244 | 3,094 | 2,429 |
| Clinical fields | 2,011 | 130 | 13 | 182 | 66 | 1,321 | 167 | 132 |
| Dental sciences | 541 | 12 | 1 | 73 | 22 | 298 | 9 | 126 |
| Nursing | 24,647 | 1,451 | 131 | 900 | 814 | 19,638 | 1,309 | 404 |
| Pharmaceutical sciences | 1,525 | 92 | 1 | 132 | 97 | 599 | 61 | 543 |
| Preventive medicine/community health | 5,993 | 562 | 28 | 638 | 377 | 3,678 | 289 | 421 |
| Speech pathology/audiology | 12,245 | 514 | 46 | 204 | 388 | 10,289 | 535 | 269 |
| Veterinary sciences | 589 | 25 | 6 | 14 | 13 | 414 | 4 | 113 |
| Other health fields | 13,103 | 618 | 57 | 754 | 526 | 10,007 | 720 | 421 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|---------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, all institutions | 306,636 | 16,489 | 1,361 | 17,924 | 12,177 | 181,919 | 14,379 | 62,387 |
| New England | 21,171 | 519 | 59 | 1,015 | 533 | 11,678 | 1,595 | 5,772 |
| Connecticut | 4,633 | 138 | 14 | 180 | 117 | 2,770 | 253 | 1,161 |
| Central Connecticut State University | 45 | 0 | 0 | 1 | 1 | 37 | 1 | 5 |
| Connecticut College | 20 | 0 | 0 | 0 | 0 | 19 | 0 | 1 |
| Quinnipiac College | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Rensselaer at Hartford | 300 | 4 | 0 | 19 | 5 | 186 | 46 | 40 |
| Southern Connecticut State University | 345 | 33 | 0 | 8 | 11 | 264 | 24 | 5 |
| St. Joseph College | 101 | 4 | 0 | 0 | 1 | 96 | 0 | 0 |
| Trinity College | 31 | 2 | 0 | 2 | 3 | 24 | 0 | 0 |
| University of Bridgeport | 197 | 0 | 1 | 10 | 4 | 65 | 0 | 117 |
| University of Connecticut | 1,454 | 26 | 5 | 59 | 41 | 906 | 7 | 410 |
| University of Hartford | 205 | 13 | 1 | 0 | 8 | 160 | 1 | 22 |
| University of New Haven | 535 | 28 | 0 | 20 | 8 | 397 | 18 | 64 |
| Wesleyan University | 119 | 6 | 0 | 6 | 5 | 57 | 0 | 45 |
| Western Connecticut State University | 43 | 0 | 0 | 1 | 0 | 40 | 2 | 0 |
| Yale University | 1,237 | 22 | 7 | 54 | 30 | 518 | 154 | 452 |
| Maine | 446 | 1 | 2 | 4 | 0 | 330 | 3 | 106 |
| University of Maine | 446 | 1 | 2 | 4 | 0 | 330 | 3 | 106 |
| University of New England | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts | 13,402 | 323 | 36 | 743 | 371 | 6,728 | 1,246 | 3,955 |
| American International College | 184 | 1 | 0 | 0 | 0 | 170 | 0 | 13 |
| Anna Maria College | 59 | 0 | 0 | 0 | 0 | 59 | 0 | 0 |
| Assumption College | 61 | 0 | 0 | 0 | 0 | 50 | 11 | 0 |
| Boston College | 464 | 13 | 0 | 16 | 13 | 305 | 1 | 116 |
| Boston University | 2,038 | 32 | 2 | 136 | 28 | 732 | 518 | 590 |
| Brandeis University | 549 | 8 | 4 | 30 | 32 | 277 | 0 | 198 |
| Bridgewater State College | 75 | 1 | 1 | 4 | 0 | 63 | 4 | 2 |
| Clark University | 269 | 3 | 0 | 9 | 4 | 126 | 30 | 97 |
| Emerson College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Framingham State College | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| Harvard University | 2,857 | 114 | 14 | 229 | 111 | 1,402 | 152 | 835 |
| MGH Institute of Health Professions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mass College of Pharmacy/Allied Health | 23 | 0 | 0 | 1 | 1 | 0 | 1 | 20 |
| Massachusetts Institute of Technology | 1,834 | 51 | 4 | 131 | 53 | 954 | 33 | 608 |
| Mount Holyoke College | 8 | 1 | 0 | 0 | 0 | 7 | 0 | 0 |
| Northeastern University | 788 | 17 | 3 | 12 | 9 | 212 | 208 | 327 |
| Salem State College | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| Smith College | 7 | 0 | 0 | 0 | 1 | 3 | 0 | 3 |
| Tufts University | 676 | 14 | 0 | 40 | 17 | 466 | 4 | 135 |
| University of Massachusetts | 2,213 | 53 | 4 | 67 | 88 | 1,150 | 192 | 659 |
| University of Massachusetts Dartmouth | 164 | 0 | 3 | 3 | 2 | 111 | 3 | 42 |
| University of Massachusetts Lowell | 751 | 13 | 0 | 40 | 7 | 414 | 81 | 196 |
| Western New England College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Williams College | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| Woods Hole Oceanographic Institution | 110 | 0 | 1 | 7 | 2 | 74 | 0 | 26 |
| Worcester Polytechnic Institute | 236 | 2 | 0 | 17 | 3 | 143 | 0 | 71 |
| Worcester State College | 11 | 0 | 0 | 1 | 0 | 8 | 2 | 0 |
| New Hampshire | 968 | 9 | 0 | 30 | 13 | 673 | 72 | 171 |
| Dartmouth College | 295 | 4 | 0 | 15 | 5 | 215 | 0 | 56 |
| Rivier College | 78 | 0 | 0 | 4 | 0 | 34 | 31 | 9 |
| University of New Hampshire | 595 | 5 | 0 | 11 | 8 | 424 | 41 | 106 |
| Rhode Island | 1,244 | 35 | 6 | 43 | 21 | 773 | 21 | 345 |
| Brown University | 627 | 19 | 3 | 22 | 9 | 325 | 2 | 247 |
| Rhode Island College | 37 | 0 | 1 | 1 | 0 | 29 | 6 | 0 |
| University of Rhode Island | 580 | 16 | 2 | 20 | 12 | 419 | 13 | 98 |
| Vermont | 478 | 13 | 1 | 15 | 11 | 404 | 0 | 34 |
| Goddard College | 30 | 2 | 0 | 4 | 2 | 22 | 0 | 0 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Vermont, continued: | | | | | | | | |
| Marlboro College | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Middlebury College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Vermont | 447 | 11 | 1 | 11 | 9 | 381 | 0 | 34 |
| Middle Atlantic | 52,789 | 2,732 | 102 | 3,623 | 1,717 | 28,615 | 4,274 | 11,726 |
| New Jersey | 7,550 | 363 | 8 | 768 | 243 | 3,678 | 700 | 1,790 |
| College of New Jersey, The | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Drew University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fairleigh Dickinson University | 817 | 40 | 2 | 51 | 29 | 487 | 54 | 154 |
| Kean College of New Jersey | 333 | 36 | 0 | 14 | 16 | 239 | 21 | 7 |
| Monmouth University | 93 | 1 | 0 | 14 | 1 | 25 | 14 | 38 |
| Montclair State University | 453 | 20 | 0 | 60 | 21 | 271 | 81 | 0 |
| New Jersey Institute of Technology | 936 | 33 | 0 | 161 | 42 | 159 | 185 | 356 |
| Princeton University | 899 | 22 | 1 | 45 | 17 | 456 | 6 | 352 |
| Rutgers the State Univ of New Jersey | 2,793 | 161 | 1 | 266 | 69 | 1,464 | 158 | 674 |
| Seton Hall University | 546 | 28 | 4 | 45 | 18 | 264 | 177 | 10 |
| Stevens Institute of Technology | 439 | 7 | 0 | 80 | 12 | 204 | 2 | 134 |
| Univ of Med and Dentistry of New Jersey | 198 | 12 | 0 | 24 | 13 | 87 | 2 | 60 |
| William Paterson U of NJ | 43 | 3 | 0 | 8 | 5 | 22 | 0 | 5 |
| New York | 31,565 | 1,857 | 61 | 2,116 | 1,253 | 16,077 | 3,025 | 7,176 |
| Adelphi University | 318 | 16 | 1 | 10 | 16 | 185 | 77 | 13 |
| Albany Medical College | 96 | 3 | 0 | 10 | 1 | 56 | 2 | 24 |
| Alfred University | 58 | 1 | 0 | 1 | 0 | 56 | 0 | 0 |
| CUNY Bernard Baruch College | 443 | 70 | 0 | 54 | 47 | 88 | 133 | 51 |
| CUNY Brooklyn College | 394 | 105 | 1 | 49 | 18 | 109 | 83 | 29 |
| CUNY City College | 603 | 89 | 2 | 80 | 70 | 155 | 13 | 194 |
| CUNY College of Staten Island | 72 | 2 | 0 | 22 | 3 | 26 | 19 | 0 |
| CUNY Graduate School and Univ Center | 1,899 | 81 | 3 | 66 | 74 | 1,195 | 17 | 463 |
| CUNY Herbert H. Lehman College | 52 | 7 | 0 | 10 | 12 | 10 | 5 | 8 |
| CUNY Hunter College | 186 | 8 | 0 | 16 | 10 | 94 | 33 | 25 |
| CUNY John Jay College of Crim Justice | 889 | 82 | 0 | 2 | 24 | 737 | 17 | 27 |
| CUNY Mt. Sinai School of Medicine | 183 | 10 | 0 | 35 | 4 | 70 | 0 | 64 |
| CUNY Queens College | 531 | 46 | 0 | 89 | 29 | 160 | 107 | 100 |
| Clarkson University | 61 | 1 | 0 | 0 | 0 | 23 | 0 | 37 |
| College of New Rochelle | 161 | 27 | 0 | 1 | 7 | 54 | 72 | 0 |
| College of St Rose | 128 | 2 | 0 | 2 | 1 | 115 | 8 | 0 |
| Columbia Univ in the City of New York | 1,716 | 37 | 1 | 219 | 34 | 789 | 69 | 567 |
| Cooper Union | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cornell University | 2,532 | 61 | 11 | 140 | 62 | 1,269 | 1 | 988 |
| Fordham University | 471 | 13 | 0 | 24 | 30 | 230 | 118 | 56 |
| Hofstra University | 371 | 6 | 2 | 6 | 5 | 148 | 184 | 20 |
| Iona College | 197 | 10 | 0 | 15 | 6 | 61 | 105 | 0 |
| Ithaca College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Long Island University | 1,047 | 194 | 1 | 39 | 81 | 501 | 101 | 130 |
| Manhattan College | 7 | 0 | 0 | 1 | 1 | 1 | 0 | 4 |
| Marist College | 246 | 1 | 0 | 39 | 5 | 193 | 8 | 0 |
| New School for Social Research | 1,060 | 93 | 1 | 40 | 67 | 492 | 81 | 286 |
| New York Institute of Technology | 547 | 44 | 2 | 87 | 20 | 227 | 0 | 167 |
| New York Medical College | 188 | 9 | 0 | 22 | 6 | 79 | 35 | 37 |
| New York University | 2,791 | 173 | 4 | 231 | 99 | 1,104 | 298 | 882 |
| Niagara University | 18 | 2 | 0 | 0 | 0 | 9 | 0 | 7 |
| Pace University | 564 | 35 | 0 | 36 | 27 | 211 | 196 | 59 |
| Polytechnic University | 514 | 13 | 0 | 60 | 10 | 151 | 193 | 87 |
| Pratt Institute | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rensselaer Polytechnic Institute | 436 | 12 | 1 | 13 | 10 | 275 | 15 | 110 |
| Rochester Institute of Technology | 351 | 5 | 0 | 23 | 5 | 205 | 18 | 95 |
| Russell Sage College | 172 | 6 | 0 | 0 | 0 | 105 | 60 | 1 |
| SUNY Health Science Center at Syracuse | 68 | 1 | 0 | 6 | 0 | 50 | 0 | 11 |
| SUNY College at Brockport | 448 | 11 | 0 | 3 | 4 | 424 | 0 | 6 |
| SUNY College at Buffalo | 22 | 1 | 0 | 0 | 0 | 16 | 1 | 4 |
| SUNY College at Cortland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| New York, continued: | | | | | | | | |
| SUNY College at Fredonia | 27 | 1 | 0 | 0 | 0 | 26 | 0 | 0 |
| SUNY College at Geneseo | 3 | 0 | 0 | 1 | 0 | 2 | 0 | 0 |
| SUNY College at Oneonta | 7 | 0 | 0 | 0 | 0 | 7 | 0 | 0 |
| SUNY College at Oswego | 135 | 5 | 0 | 0 | 3 | 127 | 0 | 0 |
| SUNY College at Plattsburgh | 20 | 0 | 0 | 0 | 0 | 20 | 0 | 0 |
| SUNY College at Potsdam | 8 | 0 | 0 | 0 | 0 | 8 | 0 | 0 |
| SUNY College of Env Science and Forestry | 305 | 2 | 1 | 1 | 9 | 229 | 0 | 63 |
| SUNY College of Optometry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY Health Science Center at Brooklyn | 78 | 3 | 0 | 24 | 1 | 16 | 0 | 34 |
| SUNY Inst of Technology at Utica-Rome | 48 | 1 | 1 | 1 | 1 | 41 | 3 | 0 |
| SUNY at Albany | 2,056 | 105 | 4 | 29 | 94 | 1,162 | 314 | 348 |
| SUNY at Binghamton | 857 | 43 | 4 | 27 | 30 | 503 | 0 | 250 |
| SUNY at Buffalo | 1,609 | 51 | 3 | 164 | 36 | 978 | 8 | 369 |
| SUNY at New Paltz | 110 | 5 | 0 | 9 | 2 | 70 | 2 | 22 |
| SUNY at Stony Brook | 1,591 | 38 | 5 | 122 | 37 | 721 | 14 | 654 |
| Saint John's University | 455 | 37 | 2 | 17 | 36 | 276 | 43 | 44 |
| Sarah Lawrence College | 56 | 1 | 1 | 3 | 0 | 35 | 2 | 14 |
| St. Bonaventure University | 7 | 0 | 0 | 0 | 0 | 7 | 0 | 0 |
| Syracuse University | 797 | 35 | 2 | 12 | 25 | 322 | 199 | 202 |
| Teachers College, Columbia University | 1,906 | 211 | 7 | 150 | 125 | 891 | 346 | 176 |
| The Rockefeller University | 105 | 5 | 0 | 14 | 5 | 31 | 2 | 48 |
| Union College | 21 | 0 | 0 | 4 | 0 | 14 | 0 | 3 |
| University of Rochester | 909 | 11 | 1 | 51 | 13 | 532 | 6 | 295 |
| Vassar College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wagner College | 21 | 0 | 0 | 1 | 1 | 6 | 13 | 0 |
| Yeshiva University | 594 | 26 | 0 | 35 | 47 | 380 | 4 | 102 |
| Pennsylvania | 13,674 | 512 | 33 | 739 | 221 | 8,860 | 549 | 2,760 |
| Allegheny Univ. of the Health Sciences | 510 | 31 | 1 | 57 | 10 | 337 | 33 | 41 |
| Bloomsburg University of Pennsylvania | 21 | 0 | 0 | 0 | 1 | 19 | 0 | 1 |
| Bryn Mawr College | 108 | 2 | 1 | 2 | 1 | 90 | 2 | 10 |
| Bucknell University | 27 | 0 | 0 | 0 | 0 | 23 | 0 | 4 |
| California University of Pennsylvania | 145 | 3 | 0 | 0 | 0 | 135 | 0 | 7 |
| Carnegie Mellon University | 1,141 | 52 | 5 | 57 | 18 | 582 | 86 | 341 |
| Clarion University of Pennsylvania | 27 | 1 | 0 | 0 | 0 | 26 | 0 | 0 |
| Drexel University | 953 | 43 | 5 | 36 | 8 | 555 | 103 | 203 |
| Duquesne University | 337 | 5 | 0 | 2 | 2 | 285 | 2 | 41 |
| East Stroudsburg Univ of Pennsylvania | 103 | 4 | 1 | 5 | 1 | 92 | 0 | 0 |
| Edinboro University of Pennsylvania | 105 | 2 | 0 | 1 | 1 | 101 | 0 | 0 |
| Gannon University | 92 | 5 | 0 | 1 | 1 | 85 | 0 | 0 |
| Indiana University of Pennsylvania | 317 | 18 | 0 | 12 | 5 | 254 | 0 | 28 |
| Kutztown University of Pennsylvania | 144 | 1 | 0 | 7 | 3 | 133 | 0 | 0 |
| Lehigh University | 470 | 10 | 1 | 13 | 10 | 272 | 98 | 66 |
| Mansfield University of Pennsylvania | 8 | 0 | 0 | 0 | 0 | 8 | 0 | 0 |
| Marywood College | 178 | 3 | 0 | 0 | 1 | 170 | 4 | 0 |
| Medical College of Pennsylvania, The | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Millersville University of Pennsylvania | 113 | 5 | 0 | 1 | 2 | 102 | 0 | 3 |
| Pennsylvania State University | 2,412 | 67 | 4 | 66 | 43 | 1,562 | 13 | 657 |
| Philadelphia Col of Osteopathic Med | 157 | 8 | 0 | 10 | 5 | 134 | 0 | 0 |
| Philadelphia Coll of Pharmacy and Sci | 21 | 0 | 0 | 4 | 0 | 9 | 0 | 8 |
| Shippensburg University of Pennsylvania | 317 | 17 | 2 | 0 | 4 | 283 | 0 | 11 |
| Slippery Rock University of Pennsylvania | 158 | 3 | 0 | 0 | 0 | 153 | 0 | 2 |
| St Joseph's University | 258 | 21 | 0 | 79 | 3 | 138 | 0 | 17 |
| Swarthmore College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Temple University | 882 | 66 | 5 | 79 | 20 | 508 | 15 | 189 |
| Thomas Jefferson University | 281 | 14 | 2 | 29 | 18 | 194 | 0 | 24 |
| University of Pennsylvania | 1,558 | 45 | 0 | 88 | 20 | 814 | 63 | 528 |
| University of Pittsburgh | 2,003 | 72 | 2 | 147 | 36 | 1,205 | 78 | 463 |
| University of Scranton | 116 | 1 | 0 | 5 | 2 | 92 | 12 | 4 |
| Villanova University | 477 | 8 | 4 | 26 | 5 | 296 | 40 | 98 |
| West Chester University of Pennsylvania | 231 | 5 | 0 | 12 | 1 | 200 | 0 | 13 |
| Widener University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wilkes University | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 1 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| East North Central | 50,193 | 2,755 | 157 | 2,637 | 1,102 | 30,417 | 1,086 | 12,039 |
| Illinois | 17,534 | 1,400 | 41 | 1,314 | 494 | 10,105 | 527 | 3,653 |
| Bradley University | 122 | 1 | 1 | 17 | 0 | 13 | 25 | 65 |
| Chicago School of Prof Psych | 183 | 11 | 1 | 4 | 10 | 149 | 0 | 8 |
| Chicago State University | 308 | 259 | 1 | 5 | 10 | 26 | 0 | 7 |
| DePaul University | 1,743 | 151 | 2 | 298 | 80 | 1,102 | 38 | 72 |
| Eastern Illinois University | 127 | 0 | 0 | 0 | 0 | 0 | 112 | 15 |
| Finch U of Hlth Sci/The Chicago Med Sch | 277 | 5 | 0 | 71 | 9 | 169 | 1 | 22 |
| Governors State University | 455 | 144 | 0 | 9 | 14 | 262 | 16 | 10 |
| Illinois Institute of Technology | 1,271 | 158 | 0 | 191 | 38 | 597 | 21 | 266 |
| Illinois State University | 547 | 28 | 3 | 25 | 5 | 399 | 0 | 87 |
| Loyola University of Chicago | 831 | 44 | 2 | 59 | 24 | 513 | 13 | 176 |
| Midwestern University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northeastern Illinois University | 355 | 11 | 0 | 47 | 14 | 267 | 3 | 13 |
| Northern Illinois University | 876 | 28 | 1 | 54 | 8 | 598 | 5 | 182 |
| Northwestern University | 882 | 40 | 3 | 60 | 18 | 489 | 13 | 259 |
| Roosevelt University | 604 | 112 | 1 | 17 | 22 | 353 | 64 | 35 |
| Rush University | 75 | 1 | 0 | 7 | 1 | 48 | 0 | 18 |
| Southern Illinois Univ at Carbondale | 997 | 44 | 3 | 20 | 40 | 682 | 2 | 206 |
| Southern Illinois Univ at Edwardsville | 407 | 38 | 3 | 8 | 1 | 303 | 0 | 54 |
| Univ of Illinois at Urbana-Champaign | 2,967 | 71 | 6 | 164 | 56 | 1,457 | 138 | 1,075 |
| University of Chicago | 1,941 | 52 | 7 | 136 | 64 | 1,095 | 2 | 585 |
| University of Illinois at Chicago | 1,319 | 106 | 4 | 70 | 52 | 626 | 46 | 415 |
| University of Illinois at Springfield | 841 | 82 | 2 | 48 | 22 | 687 | 0 | 0 |
| Western Illinois University | 406 | 14 | 1 | 4 | 6 | 270 | 28 | 83 |
| Indiana | 6,353 | 164 | 15 | 195 | 160 | 3,840 | 80 | 1,899 |
| Ball State University | 450 | 1 | 0 | 3 | 0 | 301 | 0 | 145 |
| Butler University | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| Indiana State University | 369 | 25 | 2 | 3 | 19 | 248 | 2 | 70 |
| Indiana University | 2,876 | 74 | 6 | 99 | 57 | 1,972 | 54 | 614 |
| Indiana Wesleyan University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purdue University | 1,991 | 53 | 6 | 82 | 67 | 943 | 16 | 824 |
| Rose-Hulman Institute of Technology | 11 | 0 | 0 | 0 | 0 | 4 | 0 | 7 |
| Saint Francis College | 34 | 1 | 0 | 1 | 0 | 28 | 3 | 1 |
| University of Evansville | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Notre Dame | 579 | 9 | 0 | 7 | 16 | 306 | 4 | 237 |
| Valparaiso University | 40 | 1 | 1 | 0 | 1 | 35 | 1 | 1 |
| Michigan | 9,255 | 607 | 38 | 477 | 199 | 5,302 | 138 | 2,494 |
| Andrews University | 111 | 10 | 1 | 2 | 7 | 48 | 0 | 43 |
| Central Michigan University | 425 | 10 | 4 | 68 | 6 | 297 | 7 | 33 |
| Eastern Michigan University | 601 | 18 | 0 | 62 | 6 | 297 | 24 | 194 |
| Grand Valley State University | 178 | 11 | 0 | 10 | 2 | 142 | 2 | 11 |
| Michigan State University | 2,379 | 106 | 9 | 67 | 50 | 1,306 | 20 | 821 |
| Michigan Technological University | 223 | 3 | 0 | 3 | 0 | 108 | 4 | 105 |
| Northern Michigan University | 82 | 1 | 4 | 1 | 0 | 74 | 2 | 0 |
| Oakland University | 199 | 14 | 1 | 7 | 2 | 142 | 2 | 31 |
| University of Detroit Mercy | 282 | 29 | 0 | 8 | 0 | 194 | 0 | 51 |
| University of Michigan | 2,284 | 171 | 10 | 146 | 96 | 1,323 | 15 | 523 |
| Wayne State University | 1,414 | 146 | 6 | 84 | 19 | 650 | 60 | 449 |
| Western Michigan University | 1,077 | 88 | 3 | 19 | 11 | 721 | 2 | 233 |
| Ohio | 11,660 | 499 | 33 | 501 | 126 | 7,560 | 182 | 2,759 |
| Air Force Institute of Technology | 273 | 0 | 0 | 8 | 0 | 106 | 0 | 159 |
| Antioch University | 1,253 | 39 | 5 | 19 | 30 | 1,129 | 3 | 28 |
| Bowling Green State University | 573 | 31 | 6 | 11 | 2 | 328 | 2 | 193 |
| Case Western Reserve University | 803 | 21 | 1 | 52 | 8 | 434 | 43 | 244 |
| Cleveland State University | 539 | 57 | 0 | 22 | 7 | 289 | 31 | 133 |
| John Carroll University | 70 | 2 | 0 | 3 | 0 | 64 | 0 | 1 |
| Kent State University | 824 | 37 | 4 | 17 | 7 | 532 | 11 | 216 |
| Medical College of Ohio | 112 | 0 | 0 | 43 | 0 | 54 | 0 | 15 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Ohio, continued: | | | | | | | | |
| Miami University (OH) | 423 | 10 | 1 | 14 | 8 | 311 | 3 | 76 |
| Ohio State University | 2,708 | 93 | 6 | 194 | 32 | 1,541 | 18 | 824 |
| Ohio University | 646 | 13 | 0 | 6 | 3 | 374 | 0 | 250 |
| Union Institute | 274 | 26 | 2 | 3 | 0 | 214 | 29 | 0 |
| University of Akron | 865 | 12 | 0 | 6 | 4 | 627 | 1 | 215 |
| University of Cincinnati | 913 | 57 | 2 | 37 | 9 | 603 | 20 | 185 |
| University of Dayton | 154 | 5 | 0 | 8 | 0 | 121 | 0 | 20 |
| University of Toledo | 419 | 26 | 1 | 26 | 3 | 257 | 3 | 103 |
| Wright State University | 597 | 49 | 5 | 29 | 11 | 395 | 18 | 90 |
| Xavier University | 85 | 11 | 0 | 1 | 2 | 71 | 0 | 0 |
| Youngstown State University | 129 | 10 | 0 | 2 | 0 | 110 | 0 | 7 |
| Wisconsin | 5,391 | 85 | 30 | 150 | 123 | 3,610 | 159 | 1,234 |
| Marquette University | 299 | 6 | 0 | 12 | 4 | 159 | 0 | 118 |
| Medical College of Wisconsin | 144 | 0 | 0 | 6 | 3 | 75 | 29 | 31 |
| Milwaukee School of Engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Wisconsin-Eau Claire | 18 | 0 | 0 | 0 | 0 | 18 | 0 | 0 |
| University of Wisconsin-Green Bay | 78 | 1 | 2 | 0 | 0 | 68 | 0 | 7 |
| University of Wisconsin-La Crosse | 62 | 0 | 1 | 4 | 0 | 53 | 3 | 1 |
| University of Wisconsin-Madison | 3,444 | 27 | 17 | 88 | 91 | 2,216 | 119 | 886 |
| University of Wisconsin-Milwaukee | 999 | 48 | 8 | 28 | 22 | 709 | 8 | 176 |
| University of Wisconsin-Oshkosh | 138 | 3 | 0 | 9 | 1 | 125 | 0 | 0 |
| University of Wisconsin-Platteville | 7 | 0 | 0 | 0 | 0 | 7 | 0 | 0 |
| University of Wisconsin-River Falls | 40 | 0 | 0 | 0 | 0 | 40 | 0 | 0 |
| University of Wisconsin-Stevens Point | 68 | 0 | 1 | 0 | 1 | 65 | 0 | 1 |
| University of Wisconsin-Stout | 78 | 0 | 1 | 3 | 1 | 61 | 0 | 12 |
| University of Wisconsin-Whitewater | 16 | 0 | 0 | 0 | 0 | 14 | 0 | 2 |
| West North Central | 21,074 | 607 | 104 | 686 | 385 | 12,860 | 1,827 | 4,605 |
| Iowa | 3,481 | 87 | 7 | 74 | 59 | 1,960 | 129 | 1,165 |
| Drake University | 262 | 22 | 0 | 9 | 11 | 220 | 0 | 0 |
| Iowa State University | 1,819 | 31 | 4 | 27 | 28 | 905 | 101 | 723 |
| Loras College | 12 | 0 | 0 | 0 | 0 | 12 | 0 | 0 |
| Maharishi University of Management | 48 | 0 | 0 | 0 | 0 | 8 | 23 | 17 |
| Marycrest International Univ | 27 | 0 | 0 | 0 | 1 | 13 | 2 | 11 |
| Univ of Osteopathic Med & Health Sci | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Iowa | 1,158 | 23 | 2 | 34 | 16 | 673 | 2 | 408 |
| University of Northern Iowa | 155 | 11 | 1 | 4 | 3 | 129 | 1 | 6 |
| Kansas | 4,576 | 169 | 38 | 100 | 103 | 2,895 | 352 | 919 |
| Emporia State University | 208 | 2 | 2 | 3 | 4 | 170 | 11 | 16 |
| Fort Hays State University | 61 | 0 | 1 | 3 | 3 | 54 | 0 | 0 |
| Kansas State University | 1,347 | 36 | 5 | 42 | 15 | 835 | 3 | 411 |
| Pittsburg State University | 239 | 6 | 3 | 7 | 4 | 178 | 25 | 16 |
| University of Kansas | 2,215 | 106 | 25 | 36 | 62 | 1,356 | 310 | 320 |
| Washburn University of Topeka | 26 | 1 | 0 | 0 | 0 | 25 | 0 | 0 |
| Wichita State University | 480 | 18 | 2 | 9 | 15 | 277 | 3 | 156 |
| Minnesota | 5,309 | 102 | 24 | 152 | 68 | 2,835 | 1,230 | 898 |
| Bemidji State University | 14 | 0 | 0 | 0 | 0 | 12 | 0 | 2 |
| Mankato State University | 267 | 8 | 1 | 18 | 2 | 202 | 12 | 24 |
| Mayo Graduate School | 141 | 2 | 1 | 5 | 8 | 90 | 5 | 30 |
| Moorhead State University | 50 | 0 | 0 | 0 | 0 | 50 | 0 | 0 |
| Saint Mary's University of Minnesota | 1,086 | 0 | 0 | 0 | 0 | 0 | 1,086 | 0 |
| St. Cloud State University | 68 | 0 | 0 | 6 | 0 | 60 | 2 | 0 |
| University of Minnesota | 3,373 | 69 | 19 | 119 | 51 | 2,260 | 13 | 842 |
| Walden University | 310 | 23 | 3 | 4 | 7 | 161 | 112 | 0 |
| Missouri | 4,368 | 189 | 15 | 238 | 104 | 2,922 | 68 | 832 |
| Central Missouri State University | 258 | 18 | 0 | 6 | 6 | 228 | 0 | 0 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Missouri, continued: | | | | | | | | |
| Forest Institute of Professional Psych | 181 | 5 | 1 | 2 | 4 | 162 | 7 | 0 |
| Kirksville College of Osteopathic Med | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lincoln University | 14 | 6 | 0 | 0 | 0 | 8 | 0 | 0 |
| Northwest Missouri State University | 38 | 0 | 0 | 4 | 0 | 33 | 1 | 0 |
| Saint Louis University | 414 | 34 | 1 | 14 | 8 | 310 | 2 | 45 |
| Southeast Missouri State University | 43 | 2 | 0 | 1 | 0 | 39 | 0 | 1 |
| Southwest Missouri State University | 248 | 1 | 0 | 3 | 2 | 232 | 2 | 8 |
| Truman State University | 15 | 0 | 0 | 7 | 0 | 6 | 2 | 0 |
| University of Missouri-Columbia | 1,148 | 57 | 4 | 67 | 36 | 689 | 6 | 289 |
| University of Missouri-Kansas City | 467 | 14 | 4 | 12 | 11 | 276 | 2 | 148 |
| University of Missouri-Rolla | 238 | 3 | 2 | 6 | 1 | 114 | 6 | 106 |
| University of Missouri-St. Louis | 392 | 29 | 1 | 18 | 18 | 280 | 2 | 44 |
| Washington University | 912 | 20 | 2 | 98 | 18 | 545 | 38 | 191 |
| Nebraska | 2,014 | 52 | 6 | 71 | 43 | 1,318 | 25 | 499 |
| Creighton University | 93 | 2 | 0 | 11 | 2 | 56 | 0 | 22 |
| University of Nebraska - Lincoln | 1,270 | 25 | 4 | 48 | 31 | 764 | 6 | 392 |
| University of Nebraska - Omaha | 514 | 21 | 1 | 9 | 10 | 389 | 19 | 65 |
| University of Nebraska Medical Center | 86 | 4 | 1 | 3 | 0 | 58 | 0 | 20 |
| University of Nebraska at Kearney | 51 | 0 | 0 | 0 | 0 | 51 | 0 | 0 |
| North Dakota | 710 | 3 | 8 | 23 | 6 | 494 | 1 | 175 |
| North Dakota State University | 429 | 2 | 1 | 14 | 1 | 263 | 1 | 147 |
| University of North Dakota | 281 | 1 | 7 | 9 | 5 | 231 | 0 | 28 |
| South Dakota | 616 | 5 | 6 | 28 | 2 | 436 | 22 | 117 |
| South Dakota School of Mines and Tech | 70 | 0 | 0 | 0 | 0 | 49 | 0 | 21 |
| South Dakota State University | 337 | 3 | 3 | 12 | 1 | 252 | 4 | 62 |
| University of South Dakota | 209 | 2 | 3 | 16 | 1 | 135 | 18 | 34 |
| South Atlantic | 49,765 | 4,507 | 119 | 2,487 | 1,488 | 31,694 | 986 | 8,484 |
| Delaware | 1,037 | 53 | 3 | 51 | 25 | 630 | 20 | 255 |
| Delaware State University | 36 | 13 | 0 | 1 | 1 | 21 | 0 | 0 |
| University of Delaware | 1,001 | 40 | 3 | 50 | 24 | 609 | 20 | 255 |
| District of Columbia | 6,193 | 908 | 11 | 382 | 190 | 3,296 | 250 | 1,156 |
| American University | 1,951 | 219 | 3 | 85 | 88 | 1,126 | 77 | 353 |
| Catholic University of America | 389 | 12 | 1 | 38 | 12 | 256 | 9 | 61 |
| Gallaudet University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| George Washington University | 2,398 | 106 | 6 | 154 | 73 | 1,512 | 139 | 408 |
| Georgetown University | 722 | 10 | 1 | 70 | 16 | 364 | 12 | 249 |
| Howard University | 630 | 484 | 0 | 35 | 1 | 19 | 13 | 78 |
| University of the District of Columbia | 103 | 77 | 0 | 0 | 0 | 19 | 0 | 7 |
| Florida | 10,055 | 678 | 29 | 376 | 810 | 6,465 | 202 | 1,495 |
| Embry-Riddle Aeronautical University | 50 | 1 | 0 | 0 | 1 | 27 | 1 | 20 |
| Florida A&M University | 179 | 112 | 0 | 9 | 2 | 24 | 30 | 2 |
| Florida Atlantic University | 601 | 48 | 2 | 38 | 47 | 388 | 0 | 78 |
| Florida Institute of Technology | 515 | 15 | 1 | 10 | 29 | 331 | 12 | 117 |
| Florida International University | 766 | 77 | 1 | 24 | 245 | 305 | 113 | 1 |
| Florida State University | 1,108 | 63 | 2 | 50 | 22 | 760 | 2 | 209 |
| Jacksonville University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nova Southeastern University | 1,710 | 114 | 8 | 43 | 153 | 1,293 | 20 | 79 |
| University of Central Florida | 768 | 41 | 2 | 45 | 44 | 542 | 0 | 94 |
| University of Florida | 2,158 | 69 | 4 | 82 | 87 | 1,318 | 9 | 589 |
| University of Miami | 765 | 47 | 3 | 29 | 108 | 377 | 11 | 190 |
| University of South Florida | 1,072 | 57 | 3 | 39 | 65 | 796 | 4 | 108 |
| University of West Florida | 363 | 34 | 3 | 7 | 7 | 304 | 0 | 8 |
| Georgia | 5,745 | 767 | 13 | 243 | 91 | 3,534 | 105 | 992 |
| Atlanta University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------------|---|--------------------------------|------------------------|------------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Georgia, continued: | | | | | | | | |
| Augusta State University | 35 | 3 | 0 | 1 | 0 | 31 | 0 | 0 |
| Clark Atlanta University | 347 | 285 | 0 | 6 | 9 | 0 | 13 | 34 |
| Emory University | 711 | 45 | 1 | 39 | 13 | 471 | 0 | 142 |
| Fort Valley State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Georgia College and State University | 258 | 43 | 3 | 3 | 4 | 193 | 0 | 12 |
| Georgia Institute of Technology | 874 | 67 | 3 | 32 | 16 | 532 | 0 | 224 |
| Georgia Southern University | 157 | 22 | 0 | 2 | 1 | 130 | 1 | 1 |
| Georgia State University | 1,032 | 166 | 0 | 91 | 17 | 604 | 48 | 106 |
| Institute of Paper Science & Technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medical College of Georgia | 101 | 8 | 0 | 4 | 2 | 49 | 2 | 36 |
| Mercer University | 31 | 0 | 0 | 0 | 0 | 0 | 29 | 2 |
| Morehouse School of Medicine | 16 | 12 | 0 | 0 | 2 | 1 | 1 | 0 |
| State University of West Georgia | 157 | 18 | 0 | 0 | 0 | 128 | 3 | 8 |
| University of Georgia | 1,796 | 51 | 2 | 65 | 21 | 1,228 | 8 | 421 |
| Valdosta State University | 230 | 47 | 4 | 0 | 6 | 167 | 0 | 6 |
| Maryland | 7,096 | 581 | 18 | 469 | 111 | 4,200 | 187 | 1,530 |
| Coppin State College | 47 | 45 | 0 | 0 | 0 | 2 | 0 | 0 |
| Frostburg State University | 73 | 0 | 0 | 1 | 2 | 70 | 0 | 0 |
| Hood College | 385 | 10 | 0 | 37 | 1 | 213 | 98 | 26 |
| Johns Hopkins University | 1,449 | 42 | 4 | 146 | 30 | 795 | 3 | 429 |
| Loyola College | 501 | 41 | 0 | 6 | 4 | 407 | 13 | 30 |
| Morgan State University | 73 | 49 | 0 | 2 | 1 | 10 | 11 | 0 |
| Towson University | 451 | 27 | 5 | 30 | 7 | 297 | 0 | 85 |
| Uniformed Serv Univ of the Hlth Sciences | 63 | 2 | 1 | 5 | 2 | 49 | 4 | 0 |
| Univ of Maryland - Baltimore County | 734 | 55 | 1 | 51 | 4 | 475 | 2 | 146 |
| University of Baltimore | 439 | 136 | 0 | 3 | 3 | 280 | 6 | 11 |
| University of Maryland - College Park | 2,409 | 122 | 7 | 118 | 50 | 1,334 | 36 | 742 |
| University of Maryland Eastern Shore | 113 | 38 | 0 | 30 | 2 | 39 | 4 | 0 |
| University of Maryland at Baltimore | 333 | 13 | 0 | 38 | 5 | 209 | 8 | 60 |
| Washington College | 26 | 1 | 0 | 2 | 0 | 20 | 2 | 1 |
| North Carolina | 7,658 | 777 | 17 | 335 | 95 | 5,360 | 65 | 1,009 |
| Appalachian State University | 211 | 5 | 0 | 0 | 4 | 198 | 0 | 4 |
| Duke University | 1,020 | 26 | 1 | 92 | 13 | 719 | 9 | 160 |
| East Carolina University | 331 | 15 | 1 | 2 | 4 | 276 | 7 | 26 |
| North Carolina A&T State University | 146 | 91 | 0 | 23 | 0 | 15 | 11 | 6 |
| North Carolina Central University | 378 | 320 | 2 | 7 | 1 | 47 | 1 | 0 |
| North Carolina State University | 2,130 | 86 | 4 | 65 | 24 | 1,551 | 5 | 395 |
| Univ of North Carolina at Chapel Hill | 2,104 | 132 | 5 | 91 | 36 | 1,528 | 12 | 300 |
| Univ of North Carolina at Charlotte | 517 | 53 | 1 | 24 | 3 | 345 | 0 | 91 |
| Univ of North Carolina at Greensboro | 295 | 32 | 1 | 7 | 5 | 234 | 2 | 14 |
| University of North Carolina/Wilmington | 148 | 1 | 1 | 11 | 1 | 134 | 0 | 0 |
| Wake Forest University | 268 | 11 | 1 | 13 | 4 | 217 | 9 | 13 |
| Western Carolina University | 110 | 5 | 0 | 0 | 0 | 96 | 9 | 0 |
| South Carolina | 2,510 | 106 | 3 | 33 | 39 | 1,737 | 21 | 571 |
| Clemson University | 972 | 23 | 1 | 5 | 7 | 649 | 17 | 270 |
| College of Charleston | 187 | 11 | 1 | 1 | 1 | 167 | 0 | 6 |
| Furman University | 9 | 0 | 0 | 2 | 0 | 7 | 0 | 0 |
| Medical University of South Carolina | 235 | 8 | 0 | 3 | 4 | 181 | 1 | 38 |
| University of South Carolina | 1,022 | 56 | 1 | 22 | 25 | 658 | 3 | 257 |
| Winthrop University | 85 | 8 | 0 | 0 | 2 | 75 | 0 | 0 |
| Virginia | 8,113 | 618 | 20 | 568 | 119 | 5,424 | 119 | 1,245 |
| College of William and Mary | 348 | 11 | 1 | 10 | 5 | 280 | 0 | 41 |
| Eastern Virginia Medical School | 139 | 20 | 0 | 10 | 0 | 88 | 1 | 20 |
| George Mason University | 2,318 | 115 | 3 | 279 | 43 | 1,486 | 0 | 392 |
| Hampton University | 76 | 51 | 1 | 11 | 0 | 5 | 7 | 1 |
| Hollins College | 5 | 0 | 0 | 0 | 0 | 5 | 0 | 0 |
| Institute of Textile Technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Virginia, continued: | | | | | | | | |
| James Madison University | 166 | 8 | 1 | 7 | 3 | 131 | 0 | 16 |
| Old Dominion University | 895 | 110 | 3 | 23 | 13 | 551 | 30 | 165 |
| Radford University | 169 | 13 | 1 | 2 | 0 | 138 | 0 | 15 |
| University of Richmond | 12 | 0 | 0 | 1 | 0 | 11 | 0 | 0 |
| University of Virginia | 1,085 | 45 | 2 | 66 | 15 | 760 | 66 | 131 |
| Virginia Commonwealth University | 1,000 | 97 | 7 | 85 | 11 | 723 | 3 | 74 |
| Virginia Polytechnic Inst and State Univ | 1,823 | 84 | 1 | 74 | 29 | 1,233 | 12 | 390 |
| Virginia State University | 77 | 64 | 0 | 0 | 0 | 13 | 0 | 0 |
| West Virginia | 1,358 | 19 | 5 | 30 | 8 | 1,048 | 17 | 231 |
| Marshall University | 499 | 5 | 3 | 8 | 4 | 446 | 17 | 16 |
| University of Charleston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Virginia Graduate College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Virginia University | 859 | 14 | 2 | 22 | 4 | 602 | 0 | 215 |
| West Virginia University Institute of Te | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| East South Central | 13,364 | 1,528 | 39 | 351 | 153 | 8,805 | 103 | 2,385 |
| Alabama | 3,867 | 519 | 17 | 147 | 45 | 2,368 | 20 | 751 |
| Alabama A&M University | 250 | 142 | 0 | 6 | 0 | 19 | 0 | 83 |
| Alabama State University | 15 | 14 | 0 | 0 | 0 | 1 | 0 | 0 |
| Auburn University | 1,103 | 101 | 5 | 21 | 13 | 733 | 8 | 222 |
| Jacksonville State University | 228 | 53 | 2 | 3 | 8 | 145 | 1 | 16 |
| Troy State University in Montgomery | 51 | 10 | 0 | 4 | 1 | 36 | 0 | 0 |
| Tuskegee University | 65 | 45 | 0 | 3 | 0 | 1 | 8 | 8 |
| University of Alabama at Birmingham, The | 804 | 72 | 0 | 80 | 10 | 506 | 3 | 133 |
| University of Alabama in Huntsville, The | 287 | 13 | 3 | 14 | 4 | 190 | 0 | 63 |
| University of Alabama, The | 779 | 53 | 4 | 9 | 4 | 552 | 0 | 157 |
| University of Montevallo | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of South Alabama | 285 | 16 | 3 | 7 | 5 | 185 | 0 | 69 |
| Kentucky | 2,734 | 111 | 7 | 38 | 33 | 1,978 | 63 | 504 |
| Eastern Kentucky University | 235 | 14 | 0 | 0 | 0 | 199 | 0 | 22 |
| Morehead State University | 80 | 3 | 0 | 1 | 0 | 72 | 1 | 3 |
| Murray State University | 215 | 3 | 0 | 0 | 0 | 158 | 0 | 54 |
| Spalding University | 137 | 7 | 1 | 2 | 1 | 123 | 0 | 3 |
| University of Kentucky | 1,304 | 50 | 5 | 15 | 12 | 840 | 58 | 324 |
| University of Louisville | 543 | 23 | 1 | 10 | 19 | 405 | 2 | 83 |
| Western Kentucky University | 220 | 11 | 0 | 10 | 1 | 181 | 2 | 15 |
| Mississippi | 2,273 | 393 | 4 | 47 | 35 | 1,278 | 4 | 512 |
| Jackson State University | 324 | 232 | 1 | 23 | 1 | 21 | 0 | 46 |
| Mississippi State University | 833 | 54 | 1 | 16 | 26 | 497 | 1 | 238 |
| Mississippi University for Women | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Mississippi | 534 | 67 | 2 | 6 | 1 | 286 | 3 | 169 |
| University of Southern Mississippi | 582 | 40 | 0 | 2 | 7 | 474 | 0 | 59 |
| Tennessee | 4,490 | 505 | 11 | 119 | 40 | 3,181 | 16 | 618 |
| Austin Peay State University | 62 | 3 | 0 | 2 | 3 | 53 | 0 | 1 |
| East Tennessee State University | 392 | 11 | 1 | 9 | 5 | 335 | 1 | 30 |
| Fisk University | 46 | 42 | 0 | 0 | 0 | 2 | 0 | 2 |
| Memphis Medical College | 131 | 112 | 0 | 5 | 0 | 8 | 5 | 1 |
| Middle Tennessee State University | 323 | 17 | 1 | 21 | 4 | 280 | 0 | 0 |
| Tennessee State University | 300 | 137 | 0 | 12 | 4 | 131 | 0 | 16 |
| Tennessee Technological University | 149 | 3 | 0 | 0 | 1 | 137 | 0 | 8 |
| University of Memphis | 663 | 64 | 1 | 8 | 3 | 470 | 9 | 108 |
| University of Tennessee at Chattanooga | 182 | 32 | 0 | 1 | 4 | 136 | 0 | 9 |
| University of Tennessee at Knoxville | 1,334 | 49 | 7 | 24 | 10 | 1,045 | 0 | 199 |
| University of Tennessee, Memphis | 113 | 4 | 0 | 7 | 1 | 50 | 0 | 51 |
| Vanderbilt University | 795 | 31 | 1 | 30 | 5 | 534 | 1 | 193 |
| West South Central | 28,211 | 1,693 | 215 | 1,503 | 1,537 | 16,523 | 438 | 6,302 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Arkansas | 1,396 | 105 | 17 | 50 | 17 | 1,015 | 13 | 179 |
| Arkansas State University | 262 | 22 | 3 | 1 | 0 | 216 | 0 | 20 |
| University of Arkansas - Med Sci Campus | 131 | 6 | 4 | 5 | 0 | 85 | 0 | 31 |
| University of Arkansas Main | 605 | 15 | 7 | 30 | 12 | 432 | 12 | 97 |
| University of Arkansas at Little Rock | 230 | 50 | 1 | 10 | 5 | 133 | 1 | 30 |
| University of Central Arkansas | 168 | 12 | 2 | 4 | 0 | 149 | 0 | 1 |
| Louisiana | 4,297 | 625 | 13 | 128 | 71 | 2,362 | 69 | 1,029 |
| Grambling State University | 17 | 16 | 0 | 0 | 0 | 0 | 0 | 1 |
| Louisiana State University | 2,406 | 207 | 10 | 65 | 55 | 1,417 | 51 | 601 |
| Louisiana Tech University | 112 | 2 | 0 | 0 | 0 | 45 | 0 | 65 |
| Loyola University New Orleans | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| McNeese State University | 103 | 12 | 1 | 4 | 0 | 86 | 0 | 0 |
| Nicholls State University | 44 | 2 | 1 | 2 | 2 | 37 | 0 | 0 |
| Northeast Louisiana University | 181 | 27 | 0 | 2 | 0 | 130 | 0 | 22 |
| Northwestern State University | 39 | 5 | 0 | 0 | 1 | 33 | 0 | 0 |
| Southeastern Louisiana University | 48 | 2 | 0 | 0 | 2 | 44 | 0 | 0 |
| Southern University A & M, All Campuses | 424 | 323 | 0 | 28 | 1 | 54 | 13 | 5 |
| Tulane University | 570 | 21 | 0 | 20 | 9 | 358 | 5 | 157 |
| University of Southwestern Louisiana | 353 | 8 | 1 | 7 | 1 | 158 | 0 | 178 |
| Xavier University of Louisiana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oklahoma | 2,707 | 74 | 98 | 109 | 45 | 1,678 | 52 | 651 |
| East Central University | 30 | 2 | 3 | 0 | 0 | 25 | 0 | 0 |
| Northeastern State University | 86 | 2 | 0 | 0 | 0 | 78 | 0 | 6 |
| Oklahoma State University | 1,205 | 36 | 45 | 30 | 24 | 694 | 1 | 375 |
| Oral Roberts University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southwestern Oklahoma State University | 29 | 1 | 1 | 0 | 0 | 25 | 0 | 2 |
| University of Oklahoma | 1,177 | 31 | 42 | 75 | 18 | 736 | 44 | 231 |
| University of Tulsa | 180 | 2 | 7 | 4 | 3 | 120 | 7 | 37 |
| Texas | 19,811 | 889 | 87 | 1,216 | 1,404 | 11,468 | 304 | 4,443 |
| Abilene Christian University | 119 | 4 | 1 | 0 | 5 | 89 | 12 | 8 |
| Angelo State University | 127 | 2 | 0 | 3 | 14 | 106 | 0 | 2 |
| Baylor College of Dentistry | 7 | 0 | 0 | 0 | 1 | 3 | 0 | 3 |
| Baylor College of Medicine | 302 | 3 | 0 | 14 | 10 | 178 | 0 | 97 |
| Baylor University | 298 | 5 | 2 | 20 | 17 | 206 | 7 | 41 |
| Lamar University | 187 | 6 | 0 | 2 | 2 | 85 | 1 | 91 |
| Midwestern State University | 159 | 6 | 0 | 1 | 3 | 84 | 38 | 27 |
| Prairie View A&M University | 100 | 74 | 0 | 7 | 1 | 4 | 0 | 14 |
| Rice University | 511 | 17 | 5 | 10 | 22 | 304 | 2 | 151 |
| Sam Houston State University | 315 | 21 | 4 | 2 | 12 | 227 | 0 | 49 |
| Southern Methodist University | 506 | 21 | 3 | 43 | 13 | 320 | 0 | 106 |
| Southwest Texas State University | 624 | 21 | 1 | 18 | 77 | 433 | 0 | 74 |
| St. Mary's University | 186 | 10 | 0 | 5 | 43 | 115 | 3 | 10 |
| Stephen F. Austin State University | 271 | 7 | 1 | 4 | 5 | 235 | 0 | 19 |
| Sul Ross State University | 64 | 1 | 1 | 0 | 11 | 46 | 4 | 1 |
| Tarleton State University | 60 | 0 | 1 | 0 | 3 | 56 | 0 | 0 |
| Texas A&M University | 3,131 | 47 | 6 | 165 | 146 | 1,956 | 31 | 780 |
| Texas A&M University-Commerce | 278 | 5 | 0 | 2 | 0 | 184 | 0 | 87 |
| Texas A&M University-Corpus Christi | 228 | 3 | 2 | 10 | 43 | 158 | 0 | 12 |
| Texas A&M University-Kingsville | 338 | 4 | 1 | 3 | 145 | 140 | 0 | 45 |
| Texas Christian University | 136 | 1 | 0 | 3 | 7 | 97 | 2 | 26 |
| Texas Southern University | 358 | 211 | 0 | 6 | 8 | 49 | 13 | 71 |
| Texas Tech University | 901 | 8 | 0 | 22 | 35 | 573 | 23 | 240 |
| Texas Woman's University | 526 | 33 | 5 | 31 | 30 | 405 | 22 | 0 |
| Trinity University | 14 | 1 | 0 | 0 | 9 | 4 | 0 | 0 |
| U of North TX Hlth Sci Ctr at Ft Worth | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Texas Hlth Sci Ctr San Antonio | 189 | 6 | 0 | 8 | 18 | 99 | 3 | 55 |
| Univ of Texas Hlth Sci Ctr at Houston | 584 | 19 | 2 | 58 | 40 | 307 | 2 | 156 |
| Univ of Texas M.D. Anderson Cancer Ctr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Texas Med Branch at Galveston | 160 | 4 | 0 | 10 | 10 | 75 | 0 | 61 |
| Univ of Texas SW Medical Ctr at Dallas | 328 | 5 | 1 | 26 | 13 | 192 | 6 | 85 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|---------------|---|--------------------------------|------------------------|--------------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Texas, continued: | | | | | | | | |
| University of Central Texas | 240 | 58 | 5 | 8 | 23 | 126 | 9 | 11 |
| University of Houston | 1,158 | 36 | 7 | 337 | 46 | 494 | 5 | 233 |
| University of Houston - Victoria | 41 | 2 | 0 | 0 | 5 | 34 | 0 | 0 |
| University of Houston Clear Lake | 879 | 93 | 4 | 70 | 77 | 508 | 0 | 127 |
| University of Incarnate Word | 97 | 9 | 0 | 2 | 28 | 56 | 2 | 0 |
| University of North Texas | 1,276 | 36 | 15 | 38 | 58 | 815 | 44 | 270 |
| University of Texas at Arlington | 876 | 38 | 5 | 51 | 29 | 463 | 0 | 290 |
| University of Texas at Austin | 2,133 | 28 | 4 | 66 | 104 | 1,293 | 17 | 621 |
| University of Texas at Dallas | 914 | 24 | 4 | 126 | 16 | 344 | 3 | 397 |
| University of Texas at El Paso | 343 | 8 | 2 | 7 | 119 | 114 | 0 | 93 |
| University of Texas at San Antonio | 367 | 5 | 1 | 30 | 90 | 187 | 54 | 0 |
| University of Texas at Tyler | 212 | 3 | 1 | 6 | 3 | 132 | 0 | 67 |
| University of Texas of the Permian Basin | 39 | 1 | 0 | 0 | 3 | 34 | 0 | 1 |
| University of Texas-Pan American | 87 | 2 | 0 | 1 | 56 | 21 | 0 | 7 |
| West Texas A&M University | 142 | 1 | 3 | 1 | 4 | 117 | 1 | 15 |
| Mountain | 19,720 | 262 | 195 | 629 | 790 | 13,827 | 811 | 3,206 |
| Arizona | 4,687 | 77 | 61 | 149 | 235 | 3,107 | 66 | 992 |
| Arizona State University | 1,931 | 42 | 13 | 53 | 91 | 1,237 | 54 | 441 |
| Northern Arizona University | 517 | 9 | 29 | 8 | 46 | 401 | 0 | 24 |
| University of Arizona | 2,239 | 26 | 19 | 88 | 98 | 1,469 | 12 | 527 |
| Colorado | 5,868 | 110 | 40 | 228 | 202 | 4,321 | 142 | 825 |
| Colorado School of Mines | 484 | 5 | 3 | 5 | 6 | 295 | 30 | 140 |
| Colorado State University | 1,370 | 15 | 9 | 26 | 33 | 1,060 | 17 | 210 |
| National Technological University | 118 | 3 | 0 | 16 | 4 | 82 | 5 | 8 |
| University of Colorado | 3,006 | 69 | 24 | 138 | 121 | 2,236 | 85 | 333 |
| University of Denver | 709 | 18 | 4 | 37 | 27 | 491 | 5 | 127 |
| University of Northern Colorado | 181 | 0 | 0 | 6 | 11 | 157 | 0 | 7 |
| Idaho | 1,084 | 3 | 6 | 11 | 10 | 897 | 6 | 151 |
| Idaho State University | 239 | 1 | 1 | 2 | 3 | 219 | 0 | 13 |
| University of Idaho | 845 | 2 | 5 | 9 | 7 | 678 | 6 | 138 |
| Montana | 1,001 | 2 | 19 | 21 | 7 | 851 | 13 | 88 |
| Montana State University-Bozeman | 429 | 1 | 4 | 10 | 1 | 348 | 10 | 55 |
| Montana Tech of the Univ of Montana | 20 | 0 | 1 | 2 | 0 | 17 | 0 | 0 |
| University of Montana | 552 | 1 | 14 | 9 | 6 | 486 | 3 | 33 |
| Nevada | 1,182 | 26 | 17 | 43 | 55 | 831 | 58 | 152 |
| University of Nevada at Las Vegas | 384 | 22 | 1 | 11 | 26 | 276 | 16 | 32 |
| University of Nevada, Reno | 798 | 4 | 16 | 32 | 29 | 555 | 42 | 120 |
| New Mexico | 2,360 | 29 | 30 | 35 | 234 | 1,166 | 462 | 404 |
| Eastern New Mexico University | 80 | 1 | 1 | 1 | 3 | 63 | 0 | 11 |
| New Mexico Highlands University | 69 | 4 | 2 | 2 | 15 | 33 | 2 | 11 |
| New Mexico Institute of Mining and Tech | 165 | 0 | 0 | 0 | 3 | 116 | 0 | 46 |
| New Mexico State University | 831 | 12 | 8 | 8 | 96 | 69 | 448 | 190 |
| University of New Mexico | 1,215 | 12 | 19 | 24 | 117 | 885 | 12 | 146 |
| Utah | 2,817 | 12 | 16 | 120 | 38 | 2,050 | 61 | 520 |
| Brigham Young University | 872 | 0 | 1 | 48 | 10 | 674 | 36 | 103 |
| University of Utah | 1,111 | 6 | 6 | 62 | 17 | 777 | 20 | 223 |
| Utah State University | 834 | 6 | 9 | 10 | 11 | 599 | 5 | 194 |
| Wyoming | 721 | 3 | 6 | 22 | 9 | 604 | 3 | 74 |
| University of Wyoming | 721 | 3 | 6 | 22 | 9 | 604 | 3 | 74 |
| Pacific | 48,309 | 1,883 | 365 | 4,952 | 2,835 | 27,317 | 3,257 | 7,700 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Alaska | 621 | 6 | 19 | 10 | 2 | 506 | 7 | 71 |
| University of Alaska Anchorage | 98 | 2 | 4 | 3 | 1 | 88 | 0 | 0 |
| University of Alaska Fairbanks | 500 | 4 | 15 | 7 | 1 | 395 | 7 | 71 |
| University of Alaska Southeast | 23 | 0 | 0 | 0 | 0 | 23 | 0 | 0 |
| California | 38,833 | 1,776 | 276 | 4,224 | 2,632 | 21,239 | 2,839 | 5,847 |
| Azusa Pacific University | 387 | 30 | 1 | 61 | 23 | 220 | 2 | 50 |
| Biola University | 167 | 5 | 1 | 17 | 3 | 124 | 0 | 17 |
| Cal Schl of Prof Psych Berkeley/Alameda | 286 | 18 | 4 | 26 | 21 | 192 | 16 | 9 |
| Calif Poly State Univ, San Luis Obispo | 274 | 3 | 0 | 1 | 3 | 222 | 1 | 44 |
| Calif Sch of Prof Psych - Fresno | 339 | 19 | 8 | 20 | 18 | 244 | 29 | 1 |
| Calif Sch of Prof Psych - Los Angeles | 725 | 67 | 11 | 77 | 72 | 417 | 70 | 11 |
| Calif Sch of Prof Psych - San Diego | 642 | 19 | 13 | 32 | 33 | 486 | 45 | 14 |
| Calif State Univ at Dominguez Hills | 415 | 184 | 4 | 23 | 65 | 111 | 24 | 4 |
| Calif State Univ at Fullerton | 779 | 21 | 6 | 99 | 73 | 376 | 73 | 131 |
| Calif State Univ at Los Angeles | 606 | 67 | 4 | 101 | 179 | 148 | 65 | 42 |
| Calif State University at Sacramento | 692 | 28 | 1 | 78 | 28 | 396 | 90 | 71 |
| Calif State University, Stanislaus | 144 | 5 | 1 | 5 | 11 | 110 | 11 | 1 |
| California Institute of Integral Studies | 381 | 6 | 1 | 6 | 8 | 333 | 13 | 14 |
| California Institute of Technology | 647 | 11 | 0 | 54 | 18 | 389 | 0 | 175 |
| California State Poly University, Pomona | 325 | 10 | 1 | 48 | 36 | 147 | 37 | 46 |
| California State Univ - Bakersfield | 39 | 2 | 3 | 1 | 6 | 25 | 2 | 0 |
| California State Univ, San Bernadino | 331 | 34 | 4 | 11 | 46 | 168 | 41 | 27 |
| California State University, Chico | 355 | 6 | 5 | 12 | 23 | 231 | 42 | 36 |
| California State University, Fresno | 509 | 13 | 2 | 54 | 95 | 230 | 65 | 50 |
| California State University, Hayward | 765 | 91 | 7 | 113 | 66 | 304 | 125 | 59 |
| California State University, Long Beach | 966 | 53 | 5 | 169 | 95 | 408 | 118 | 118 |
| California State University, Northridge | 519 | 14 | 3 | 63 | 61 | 249 | 82 | 47 |
| Chapman University | 387 | 18 | 3 | 15 | 24 | 289 | 35 | 3 |
| Charles R. Drew Univ of Medicine & Sci | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clairemont Graduate School | 712 | 36 | 2 | 76 | 55 | 336 | 54 | 153 |
| Dominican College of San Rafael | 133 | 4 | 0 | 1 | 7 | 83 | 8 | 30 |
| Fielding Institute, The | 948 | 62 | 7 | 23 | 33 | 814 | 9 | 0 |
| Fuller Theological Seminary | 396 | 13 | 1 | 71 | 16 | 273 | 7 | 15 |
| Golden Gate University | 488 | 48 | 1 | 62 | 26 | 212 | 40 | 99 |
| Harvey Mudd College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Humboldt State University | 275 | 1 | 9 | 8 | 22 | 198 | 34 | 3 |
| John F Kennedy University | 668 | 37 | 8 | 35 | 22 | 523 | 43 | 0 |
| Loma Linda University | 418 | 22 | 1 | 50 | 44 | 183 | 16 | 102 |
| Loyola Marymount University | 139 | 5 | 0 | 23 | 13 | 76 | 19 | 3 |
| National University | 916 | 105 | 5 | 67 | 105 | 581 | 20 | 33 |
| Northrop University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Occidental College | 3 | 0 | 0 | 0 | 1 | 2 | 0 | 0 |
| Pacific Graduate School of Psychology | 299 | 4 | 1 | 11 | 22 | 247 | 0 | 14 |
| Pacific States University | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 |
| Pepperdine University | 739 | 43 | 8 | 58 | 63 | 390 | 158 | 19 |
| RAND Graduate School of Policy Studies | 49 | 0 | 0 | 4 | 3 | 42 | 0 | 0 |
| San Diego State University | 1,013 | 43 | 17 | 128 | 115 | 533 | 102 | 75 |
| San Francisco State University | 828 | 44 | 15 | 121 | 72 | 400 | 107 | 69 |
| San Jose State University | 755 | 22 | 3 | 142 | 44 | 316 | 99 | 129 |
| Santa Clara University | 533 | 6 | 3 | 103 | 10 | 140 | 58 | 213 |
| Sonoma State University | 95 | 1 | 2 | 2 | 6 | 69 | 15 | 0 |
| Stanford University | 1,986 | 40 | 12 | 247 | 68 | 988 | 48 | 583 |
| US International University | 409 | 33 | 6 | 23 | 31 | 265 | 51 | 0 |
| US Naval Postgraduate School | 458 | 3 | 0 | 21 | 0 | 222 | 1 | 211 |
| University of Calif at Berkeley | 2,788 | 79 | 16 | 295 | 124 | 1,716 | 108 | 450 |
| University of Calif at Davis | 1,951 | 25 | 19 | 160 | 86 | 1,116 | 209 | 336 |
| University of Calif at Riverside | 785 | 12 | 0 | 72 | 53 | 403 | 92 | 153 |
| University of Calif at San Diego | 1,419 | 24 | 5 | 158 | 69 | 847 | 100 | 216 |
| University of Calif at San Francisco | 297 | 4 | 0 | 50 | 17 | 198 | 9 | 19 |
| University of Calif at Santa Barbara | 1,036 | 17 | 3 | 72 | 56 | 669 | 73 | 146 |
| University of Calif at Santa Cruz | 653 | 23 | 4 | 60 | 45 | 367 | 77 | 77 |
| University of California, Irvine | 1,003 | 10 | 3 | 169 | 58 | 517 | 89 | 157 |
| University of California, Los Angeles | 2,674 | 99 | 23 | 433 | 156 | 1,253 | 142 | 568 |

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| California, continued: | | | | | | | | |
| University of La Verne | 204 | 37 | 5 | 32 | 22 | 106 | 2 | 0 |
| University of Redlands | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of San Diego | 51 | 1 | 0 | 5 | 5 | 32 | 1 | 7 |
| University of San Francisco | 114 | 3 | 2 | 12 | 1 | 32 | 17 | 47 |
| University of Southern California | 2,617 | 122 | 5 | 310 | 131 | 1,066 | 45 | 938 |
| University of the Pacific | 50 | 1 | 0 | 5 | 3 | 29 | 0 | 12 |
| West Coast University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Whittier College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wright Institute, The | 245 | 23 | 2 | 23 | 21 | 176 | 0 | 0 |
| Hawaii | 1,397 | 4 | 2 | 331 | 13 | 599 | 28 | 420 |
| University of Hawaii at Manoa | 1,397 | 4 | 2 | 331 | 13 | 599 | 28 | 420 |
| Oregon | 2,971 | 31 | 22 | 101 | 59 | 1,873 | 210 | 675 |
| Oregon Grad Inst of Science & Technology | 174 | 0 | 0 | 2 | 3 | 90 | 0 | 79 |
| Oregon Health Sciences University | 123 | 1 | 1 | 8 | 3 | 82 | 3 | 25 |
| Oregon State University | 1,197 | 8 | 7 | 47 | 19 | 700 | 94 | 322 |
| Pacific University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Portland State University | 757 | 11 | 7 | 25 | 18 | 519 | 74 | 103 |
| Southern Oregon State College | 45 | 0 | 0 | 0 | 2 | 37 | 3 | 3 |
| University of Oregon | 675 | 11 | 7 | 19 | 14 | 445 | 36 | 143 |
| University of Portland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Washington | 4,487 | 66 | 46 | 286 | 129 | 3,100 | 173 | 687 |
| Central Washington University | 96 | 0 | 8 | 1 | 4 | 80 | 0 | 3 |
| Eastern Washington University | 254 | 2 | 0 | 6 | 2 | 241 | 1 | 2 |
| Gonzaga University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacific Lutheran University | 65 | 6 | 2 | 2 | 0 | 40 | 15 | 0 |
| Saint Martin's College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Seattle University | 143 | 4 | 2 | 11 | 3 | 95 | 19 | 9 |
| University of Washington | 2,742 | 40 | 22 | 225 | 71 | 1,832 | 100 | 452 |
| Walla Walla College | 12 | 0 | 0 | 0 | 0 | 12 | 0 | 0 |
| Washington State University | 981 | 12 | 9 | 36 | 43 | 655 | 14 | 212 |
| Western Washington University | 194 | 2 | 3 | 5 | 6 | 145 | 24 | 9 |
| Whitworth College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Outlying Areas | 2,040 | 3 | 6 | 41 | 1,637 | 183 | 2 | 168 |
| Guam | 67 | 0 | 6 | 36 | 7 | 16 | 0 | 2 |
| University of Guam | 67 | 0 | 6 | 36 | 7 | 16 | 0 | 2 |
| Puerto Rico | 1,973 | 3 | 0 | 5 | 1,630 | 167 | 2 | 166 |
| Caribbean Center for Advanced Studies | 319 | 0 | 0 | 0 | 319 | 0 | 0 | 0 |
| Ponce School of Medicine | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 |
| The Pontifical Cath Univ of Puerto Rico | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 0 |
| Univ of Puerto Rico Mayaguez Campus | 444 | 1 | 0 | 0 | 349 | 13 | 0 | 81 |
| Univ of Puerto Rico Rio Piedras Campus | 1,086 | 2 | 0 | 0 | 848 | 154 | 2 | 80 |
| University of Puerto Rico Med Sci Campus | 96 | 0 | 0 | 5 | 86 | 0 | 0 | 5 |

NOTES: Includes medical schools

For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|---------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, all institutions | 101,008 | 2,874 | 238 | 8,154 | 2,811 | 46,017 | 4,492 | 36,422 |
| New England | 7,566 | 119 | 7 | 467 | 108 | 3,550 | 809 | 2,506 |
| Connecticut | 946 | 19 | 0 | 62 | 9 | 484 | 63 | 309 |
| Central Connecticut State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Connecticut College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Quinnipiac College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rensselaer at Hartford | 185 | 8 | 0 | 8 | 3 | 118 | 39 | 9 |
| Southern Connecticut State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| St. Joseph College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Trinity College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Bridgeport | 101 | 2 | 0 | 2 | 0 | 25 | 0 | 72 |
| University of Connecticut | 427 | 9 | 0 | 38 | 5 | 220 | 5 | 150 |
| University of Hartford | 44 | 0 | 0 | 9 | 1 | 24 | 10 | 0 |
| University of New Haven | 104 | 0 | 0 | 3 | 0 | 79 | 0 | 22 |
| Wesleyan University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Western Connecticut State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yale University | 85 | 0 | 0 | 2 | 0 | 18 | 9 | 56 |
| Maine | 138 | 1 | 0 | 3 | 0 | 92 | 0 | 42 |
| University of Maine | 138 | 1 | 0 | 3 | 0 | 92 | 0 | 42 |
| University of New England | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts | 5,857 | 95 | 6 | 355 | 97 | 2,570 | 739 | 1,995 |
| American International College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Anna Maria College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Assumption College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Boston College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Boston University | 369 | 4 | 0 | 11 | 2 | 67 | 132 | 153 |
| Brandeis University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bridgewater State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clark University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Emerson College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Framingham State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Harvard University | 167 | 3 | 0 | 20 | 1 | 64 | 14 | 65 |
| MGH Institute of Health Professions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mass College of Pharmacy/Allied Health | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts Institute of Technology | 2,240 | 49 | 2 | 236 | 63 | 1,086 | 2 | 802 |
| Mount Holyoke College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northeastern University | 953 | 7 | 1 | 8 | 2 | 144 | 430 | 361 |
| Salem State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Smith College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tufts University | 376 | 9 | 0 | 6 | 7 | 259 | 5 | 90 |
| University of Massachusetts | 458 | 3 | 0 | 4 | 8 | 133 | 62 | 248 |
| University of Massachusetts Dartmouth | 81 | 1 | 0 | 2 | 0 | 32 | 2 | 44 |
| University of Massachusetts Lowell | 764 | 15 | 2 | 46 | 2 | 472 | 91 | 136 |
| Western New England College | 62 | 0 | 0 | 1 | 1 | 60 | 0 | 0 |
| Williams College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Woods Hole Oceanographic Institution | 27 | 0 | 0 | 1 | 1 | 19 | 0 | 6 |
| Worcester Polytechnic Institute | 360 | 4 | 1 | 20 | 10 | 234 | 1 | 90 |
| Worcester State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Hampshire | 224 | 0 | 0 | 7 | 2 | 154 | 7 | 54 |
| Dartmouth College | 62 | 0 | 0 | 1 | 0 | 35 | 0 | 26 |
| Rivier College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of New Hampshire | 162 | 0 | 0 | 6 | 2 | 119 | 7 | 28 |
| Rhode Island | 310 | 3 | 1 | 38 | 0 | 172 | 0 | 96 |
| Brown University | 90 | 3 | 1 | 1 | 0 | 39 | 0 | 46 |
| Rhode Island College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Rhode Island | 220 | 0 | 0 | 37 | 0 | 133 | 0 | 50 |
| Vermont | 91 | 1 | 0 | 2 | 0 | 78 | 0 | 10 |
| Goddard College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|---------------|---|--------------------------------|------------------------|------------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Vermont, continued: | | | | | | | | |
| Marlboro College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Middlebury College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Vermont | 91 | 1 | 0 | 2 | 0 | 78 | 0 | 10 |
| Middle Atlantic | 14,886 | 499 | 18 | 1,074 | 336 | 6,234 | 1,161 | 5,564 |
| New Jersey | 3,000 | 129 | 4 | 261 | 104 | 1,226 | 246 | 1,030 |
| College of New Jersey, The | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Drew University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fairleigh Dickinson University | 19 | 1 | 0 | 1 | 1 | 3 | 0 | 13 |
| Kean College of New Jersey | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Monmouth University | 149 | 8 | 0 | 21 | 6 | 70 | 31 | 13 |
| Montclair State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Jersey Institute of Technology | 938 | 46 | 3 | 71 | 61 | 263 | 122 | 372 |
| Princeton University | 341 | 1 | 1 | 12 | 3 | 148 | 2 | 174 |
| Rutgers the State Univ of New Jersey | 666 | 22 | 0 | 73 | 11 | 261 | 24 | 275 |
| Seton Hall University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stevens Institute of Technology | 887 | 51 | 0 | 83 | 22 | 481 | 67 | 183 |
| Univ of Med and Dentistry of New Jersey | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| William Paterson U of NJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York | 6,923 | 241 | 7 | 526 | 173 | 2,576 | 698 | 2,702 |
| Adelphi University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Albany Medical College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Alfred University | 71 | 0 | 0 | 1 | 0 | 37 | 0 | 33 |
| CUNY Bernard Baruch College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUNY Brooklyn College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUNY City College | 182 | 36 | 0 | 33 | 15 | 34 | 17 | 47 |
| CUNY College of Staten Island | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUNY Graduate School and Univ Center | 123 | 16 | 0 | 7 | 6 | 15 | 0 | 79 |
| CUNY Herbert H. Lehman College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUNY Hunter College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUNY John Jay College of Crim Justice | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUNY Mt. Sinai School of Medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUNY Queens College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clarkson University | 155 | 3 | 3 | 1 | 1 | 57 | 0 | 90 |
| College of New Rochelle | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| College of St Rose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Columbia Univ in the City of New York | 669 | 6 | 0 | 100 | 12 | 178 | 80 | 293 |
| Cooper Union | 30 | 1 | 0 | 8 | 2 | 17 | 0 | 2 |
| Cornell University | 693 | 10 | 2 | 71 | 23 | 270 | 0 | 317 |
| Fordham University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hofstra University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Iona College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ithaca College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Long Island University | 22 | 2 | 0 | 2 | 0 | 17 | 0 | 1 |
| Manhattan College | 183 | 3 | 0 | 15 | 13 | 132 | 4 | 16 |
| Marist College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New School for Social Research | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Institute of Technology | 325 | 55 | 0 | 24 | 19 | 189 | 0 | 38 |
| New York Medical College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Niagara University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pace University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Polytechnic University | 858 | 30 | 0 | 97 | 22 | 163 | 293 | 253 |
| Pratt Institute | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rensselaer Polytechnic Institute | 1,187 | 16 | 1 | 48 | 30 | 527 | 121 | 444 |
| Rochester Institute of Technology | 209 | 12 | 0 | 17 | 11 | 128 | 9 | 32 |
| Russell Sage College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY Health Science Center at Syracuse | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Brockport | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Buffalo | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Cortland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| New York, continued: | | | | | | | | |
| SUNY College at Fredonia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Geneseo | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Oneonta | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Oswego | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Plattsburgh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College at Potsdam | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY College of Env Science and Forestry | 95 | 0 | 0 | 0 | 0 | 52 | 0 | 43 |
| SUNY College of Optometry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY Health Science Center at Brooklyn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY Inst of Technology at Utica-Rome | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY at Albany | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUNY at Binghamton | 236 | 13 | 0 | 16 | 4 | 126 | 0 | 77 |
| SUNY at Buffalo | 834 | 13 | 0 | 42 | 6 | 341 | 111 | 321 |
| SUNY at New Paltz | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| SUNY at Stony Brook | 301 | 11 | 0 | 22 | 5 | 105 | 0 | 158 |
| Saint John's University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sarah Lawrence College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| St. Bonaventure University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Syracuse University | 544 | 9 | 0 | 16 | 2 | 102 | 62 | 353 |
| Teachers College, Columbia University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| The Rockefeller University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Union College | 16 | 0 | 0 | 0 | 1 | 14 | 0 | 1 |
| University of Rochester | 188 | 5 | 1 | 6 | 1 | 71 | 1 | 103 |
| Vassar College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wagner College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yeshiva University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pennsylvania | 4,963 | 129 | 7 | 287 | 59 | 2,432 | 217 | 1,832 |
| Allegheny Univ. of the Health Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bloomsburg University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bryn Mawr College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bucknell University | 21 | 0 | 0 | 0 | 0 | 9 | 0 | 12 |
| California University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Carnegie Mellon University | 622 | 12 | 0 | 37 | 10 | 241 | 7 | 315 |
| Clarion University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Drexel University | 641 | 25 | 2 | 26 | 6 | 282 | 91 | 209 |
| Duquesne University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| East Stroudsburg Univ of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Edinboro University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gannon University | 51 | 1 | 0 | 1 | 0 | 38 | 11 | 0 |
| Indiana University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kutztown University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lehigh University | 560 | 15 | 0 | 24 | 5 | 269 | 7 | 240 |
| Mansfield University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Marywood College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medical College of Pennsylvania, The | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Millersville University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pennsylvania State University | 1,539 | 31 | 5 | 84 | 20 | 763 | 17 | 619 |
| Philadelphia Col of Osteopathic Med | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Philadelphia Coll of Pharmacy and Sci | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shippensburg University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Slippery Rock University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| St Joseph's University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Swarthmore College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Temple University | 97 | 4 | 0 | 7 | 1 | 61 | 1 | 23 |
| Thomas Jefferson University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Pennsylvania | 368 | 10 | 0 | 67 | 8 | 166 | 28 | 89 |
| University of Pittsburgh | 690 | 24 | 0 | 23 | 3 | 389 | 0 | 251 |
| University of Scranton | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Villanova University | 250 | 3 | 0 | 9 | 3 | 135 | 55 | 45 |
| West Chester University of Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Widener University | 106 | 4 | 0 | 9 | 3 | 70 | 0 | 20 |
| Wilkes University | 18 | 0 | 0 | 0 | 0 | 9 | 0 | 9 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| East North Central | 19,204 | 422 | 33 | 1,322 | 309 | 9,108 | 399 | 7,611 |
| Illinois | 4,396 | 115 | 7 | 438 | 103 | 1,888 | 67 | 1,778 |
| Bradley University | 207 | 2 | 0 | 34 | 0 | 76 | 28 | 67 |
| Chicago School of Prof Psych | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chicago State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DePaul University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eastern Illinois University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Finch U of Hlth Sci/The Chicago Med Sch | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Governors State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Illinois Institute of Technology | 787 | 28 | 3 | 99 | 28 | 333 | 1 | 295 |
| Illinois State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Loyola University of Chicago | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Midwestern University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northeastern Illinois University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northern Illinois University | 158 | 1 | 0 | 14 | 1 | 78 | 1 | 63 |
| Northwestern University | 634 | 23 | 2 | 47 | 13 | 304 | 7 | 238 |
| Roosevelt University | 24 | 4 | 0 | 2 | 0 | 13 | 0 | 5 |
| Rush University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southern Illinois Univ at Carbondale | 157 | 12 | 0 | 2 | 1 | 52 | 0 | 90 |
| Southern Illinois Univ at Edwardsville | 109 | 6 | 0 | 5 | 0 | 52 | 0 | 46 |
| Univ of Illinois at Urbana-Champaign | 1,422 | 18 | 1 | 101 | 39 | 690 | 5 | 568 |
| University of Chicago | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Illinois at Chicago | 898 | 21 | 1 | 134 | 21 | 290 | 25 | 406 |
| University of Illinois at Springfield | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Western Illinois University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indiana | 1,990 | 40 | 1 | 106 | 42 | 898 | 7 | 896 |
| Ball State University | 32 | 0 | 0 | 2 | 1 | 25 | 0 | 4 |
| Butler University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indiana State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indiana University | 87 | 5 | 0 | 21 | 0 | 59 | 0 | 2 |
| Indiana Wesleyan University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purdue University | 1,445 | 28 | 1 | 77 | 34 | 601 | 6 | 698 |
| Rose-Hulman Institute of Technology | 159 | 0 | 0 | 0 | 0 | 108 | 0 | 51 |
| Saint Francis College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Evansville | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Notre Dame | 267 | 7 | 0 | 6 | 7 | 105 | 1 | 141 |
| Valparaiso University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Michigan | 5,309 | 144 | 6 | 480 | 67 | 2,851 | 145 | 1,616 |
| Andrews University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central Michigan University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eastern Michigan University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Valley State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Michigan State University | 483 | 17 | 0 | 27 | 8 | 181 | 22 | 228 |
| Michigan Technological University | 320 | 2 | 2 | 3 | 3 | 152 | 4 | 154 |
| Northern Michigan University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oakland University | 642 | 15 | 0 | 33 | 4 | 434 | 18 | 138 |
| University of Detroit Mercy | 172 | 5 | 0 | 4 | 2 | 105 | 0 | 56 |
| University of Michigan | 2,381 | 61 | 1 | 177 | 42 | 1,340 | 25 | 735 |
| Wayne State University | 971 | 39 | 1 | 229 | 5 | 427 | 76 | 194 |
| Western Michigan University | 340 | 5 | 2 | 7 | 3 | 212 | 0 | 111 |
| Ohio | 5,261 | 93 | 16 | 196 | 50 | 2,160 | 146 | 2,600 |
| Air Force Institute of Technology | 231 | 1 | 0 | 2 | 3 | 117 | 19 | 89 |
| Antioch University | 67 | 1 | 0 | 2 | 0 | 49 | 0 | 15 |
| Bowling Green State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Case Western Reserve University | 630 | 14 | 2 | 87 | 2 | 285 | 13 | 227 |
| Cleveland State University | 235 | 6 | 3 | 6 | 9 | 104 | 26 | 81 |
| John Carroll University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kent State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medical College of Ohio | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Ohio, continued: | | | | | | | | |
| Miami University (OH) | 11 | 0 | 0 | 0 | 0 | 7 | 0 | 4 |
| Ohio State University | 1,056 | 17 | 0 | 18 | 17 | 396 | 1 | 607 |
| Ohio University | 294 | 2 | 0 | 2 | 0 | 65 | 0 | 225 |
| Union Institute | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Akron | 496 | 1 | 0 | 13 | 2 | 274 | 1 | 205 |
| University of Cincinnati | 1,032 | 25 | 0 | 34 | 5 | 335 | 22 | 611 |
| University of Dayton | 397 | 18 | 6 | 21 | 6 | 232 | 61 | 53 |
| University of Toledo | 506 | 0 | 2 | 0 | 3 | 130 | 1 | 370 |
| Wright State University | 254 | 8 | 3 | 11 | 3 | 128 | 2 | 99 |
| Xavier University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Youngstown State University | 52 | 0 | 0 | 0 | 0 | 38 | 0 | 14 |
| Wisconsin | 2,248 | 30 | 3 | 102 | 47 | 1,311 | 34 | 721 |
| Marquette University | 327 | 1 | 1 | 38 | 6 | 192 | 0 | 89 |
| Medical College of Wisconsin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Milwaukee School of Engineering | 486 | 12 | 2 | 10 | 6 | 447 | 0 | 9 |
| University of Wisconsin-Eau Claire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Wisconsin-Green Bay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Wisconsin-La Crosse | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Wisconsin-Madison | 1,063 | 10 | 0 | 36 | 28 | 439 | 33 | 517 |
| University of Wisconsin-Milwaukee | 328 | 6 | 0 | 17 | 7 | 204 | 1 | 93 |
| University of Wisconsin-Oshkosh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Wisconsin-Platteville | 14 | 0 | 0 | 0 | 0 | 14 | 0 | 0 |
| University of Wisconsin-River Falls | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Wisconsin-Stevens Point | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Wisconsin-Stout | 30 | 1 | 0 | 1 | 0 | 15 | 0 | 13 |
| University of Wisconsin-Whitewater | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West North Central | 5,613 | 67 | 5 | 273 | 48 | 2,526 | 123 | 2,571 |
| Iowa | 1,136 | 19 | 1 | 22 | 12 | 444 | 22 | 616 |
| Drake University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Iowa State University | 789 | 15 | 0 | 11 | 8 | 271 | 22 | 462 |
| Loras College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maharishi University of Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Marycrest International Univ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Osteopathic Med & Health Sci | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Iowa | 347 | 4 | 1 | 11 | 4 | 173 | 0 | 154 |
| University of Northern Iowa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kansas | 1,220 | 12 | 1 | 46 | 12 | 504 | 42 | 603 |
| Emporia State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fort Hays State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kansas State University | 332 | 3 | 0 | 15 | 5 | 155 | 0 | 154 |
| Pittsburg State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Kansas | 503 | 8 | 1 | 17 | 4 | 264 | 42 | 167 |
| Washburn University of Topeka | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wichita State University | 385 | 1 | 0 | 14 | 3 | 85 | 0 | 282 |
| Minnesota | 1,126 | 8 | 0 | 61 | 7 | 568 | 9 | 473 |
| Bemidji State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mankato State University | 12 | 0 | 0 | 1 | 0 | 4 | 1 | 6 |
| Mayo Graduate School | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Moorhead State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Saint Mary's University of Minnesota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| St. Cloud State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Minnesota | 1,114 | 8 | 0 | 60 | 7 | 564 | 8 | 467 |
| Walden University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Missouri | 1,392 | 20 | 2 | 71 | 14 | 617 | 36 | 632 |
| Central Missouri State University | 31 | 1 | 0 | 10 | 1 | 17 | 1 | 1 |

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Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Missouri, continued: | | | | | | | | |
| Forest Institute of Professional Psych | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kirksville College of Osteopathic Med | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lincoln University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northwest Missouri State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Saint Louis University | 16 | 0 | 0 | 1 | 0 | 5 | 0 | 10 |
| Southeast Missouri State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southwest Missouri State University | 9 | 0 | 0 | 0 | 0 | 6 | 0 | 3 |
| Truman State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Missouri-Columbia | 404 | 8 | 1 | 27 | 1 | 104 | 3 | 260 |
| University of Missouri-Kansas City | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Missouri-Rolla | 648 | 9 | 1 | 15 | 11 | 343 | 28 | 241 |
| University of Missouri-St. Louis | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Washington University | 284 | 2 | 0 | 18 | 1 | 142 | 4 | 117 |
| Nebraska | 354 | 6 | 1 | 45 | 3 | 201 | 1 | 97 |
| Creighton University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Nebraska - Lincoln | 354 | 6 | 1 | 45 | 3 | 201 | 1 | 97 |
| University of Nebraska - Omaha | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Nebraska Medical Center | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Nebraska at Kearney | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Dakota | 150 | 2 | 0 | 19 | 0 | 89 | 6 | 34 |
| North Dakota State University | 107 | 1 | 0 | 6 | 0 | 64 | 6 | 30 |
| University of North Dakota | 43 | 1 | 0 | 13 | 0 | 25 | 0 | 4 |
| South Dakota | 235 | 0 | 0 | 9 | 0 | 103 | 7 | 116 |
| South Dakota School of Mines and Tech | 113 | 0 | 0 | 0 | 0 | 34 | 7 | 72 |
| South Dakota State University | 122 | 0 | 0 | 9 | 0 | 69 | 0 | 44 |
| University of South Dakota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Atlantic | 17,968 | 1,001 | 44 | 1,139 | 612 | 8,910 | 379 | 5,883 |
| Delaware | 376 | 4 | 0 | 12 | 6 | 154 | 5 | 195 |
| Delaware State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Delaware | 376 | 4 | 0 | 12 | 6 | 154 | 5 | 195 |
| District of Columbia | 1,650 | 139 | 4 | 134 | 40 | 672 | 88 | 573 |
| American University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Catholic University of America | 129 | 15 | 0 | 7 | 4 | 59 | 1 | 43 |
| Gallaudet University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| George Washington University | 1,453 | 84 | 4 | 126 | 36 | 607 | 87 | 509 |
| Georgetown University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Howard University | 68 | 40 | 0 | 1 | 0 | 6 | 0 | 21 |
| University of the District of Columbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Florida | 3,923 | 175 | 13 | 217 | 360 | 1,790 | 124 | 1,244 |
| Embry-Riddle Aeronautical University | 32 | 0 | 0 | 0 | 0 | 17 | 0 | 15 |
| Florida A&M University | 64 | 35 | 0 | 6 | 7 | 7 | 9 | 0 |
| Florida Atlantic University | 256 | 8 | 1 | 26 | 21 | 89 | 0 | 111 |
| Florida Institute of Technology | 228 | 6 | 0 | 11 | 14 | 118 | 6 | 73 |
| Florida International University | 275 | 19 | 0 | 17 | 104 | 48 | 87 | 0 |
| Florida State University | 198 | 31 | 0 | 14 | 12 | 73 | 8 | 60 |
| Jacksonville University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nova Southeastern University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Central Florida | 742 | 23 | 1 | 46 | 56 | 395 | 0 | 221 |
| University of Florida | 1,253 | 27 | 8 | 49 | 66 | 640 | 3 | 460 |
| University of Miami | 247 | 11 | 1 | 8 | 31 | 98 | 11 | 87 |
| University of South Florida | 628 | 15 | 2 | 40 | 49 | 305 | 0 | 217 |
| University of West Florida | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Georgia | 2,764 | 164 | 2 | 157 | 62 | 1,440 | 52 | 887 |
| Atlanta University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------------|---|--------------------------------|------------------------|-----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Georgia, continued: | | | | | | | | |
| Augusta State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clark Atlanta University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Emory University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fort Valley State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Georgia College and State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Georgia Institute of Technology | 2,538 | 163 | 2 | 152 | 61 | 1,289 | 0 | 871 |
| Georgia Southern University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Georgia State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Institute of Paper Science & Technology | 68 | 1 | 0 | 5 | 0 | 58 | 0 | 4 |
| Medical College of Georgia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mercer University | 136 | 0 | 0 | 0 | 0 | 84 | 52 | 0 |
| Morehouse School of Medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| State University of West Georgia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Georgia | 22 | 0 | 0 | 0 | 1 | 9 | 0 | 12 |
| Valdosta State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maryland | 2,105 | 131 | 6 | 158 | 41 | 901 | 58 | 810 |
| Coppin State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Frostburg State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hood College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Johns Hopkins University | 285 | 8 | 0 | 14 | 1 | 124 | 19 | 119 |
| Loyola College | 198 | 19 | 0 | 9 | 5 | 148 | 13 | 4 |
| Morgan State University | 16 | 11 | 0 | 0 | 0 | 3 | 0 | 2 |
| Towson University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Uniformed Serv Univ of the Hlth Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Maryland - Baltimore County | 135 | 4 | 0 | 16 | 1 | 43 | 0 | 71 |
| University of Baltimore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Maryland - College Park | 1,471 | 89 | 6 | 119 | 34 | 583 | 26 | 614 |
| University of Maryland Eastern Shore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Maryland at Baltimore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Washington College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Carolina | 2,215 | 213 | 5 | 127 | 18 | 1,105 | 8 | 739 |
| Appalachian State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Duke University | 317 | 3 | 0 | 10 | 1 | 169 | 0 | 134 |
| East Carolina University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Carolina A&T State University | 240 | 139 | 0 | 18 | 1 | 21 | 7 | 54 |
| North Carolina Central University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Carolina State University | 1,423 | 60 | 4 | 81 | 14 | 784 | 1 | 479 |
| Univ of North Carolina at Chapel Hill | 71 | 4 | 0 | 5 | 2 | 48 | 0 | 12 |
| Univ of North Carolina at Charlotte | 157 | 6 | 1 | 13 | 0 | 78 | 0 | 59 |
| Univ of North Carolina at Greensboro | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of North Carolina/Wilmington | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wake Forest University | 7 | 1 | 0 | 0 | 0 | 5 | 0 | 1 |
| Western Carolina University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Carolina | 1,052 | 21 | 0 | 90 | 7 | 535 | 26 | 373 |
| Clemson University | 624 | 11 | 0 | 6 | 5 | 317 | 10 | 275 |
| College of Charleston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Furman University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medical University of South Carolina | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of South Carolina | 428 | 10 | 0 | 84 | 2 | 218 | 16 | 98 |
| Winthrop University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Virginia | 3,267 | 142 | 13 | 213 | 68 | 1,961 | 18 | 852 |
| College of William and Mary | 46 | 2 | 0 | 6 | 3 | 22 | 0 | 13 |
| Eastern Virginia Medical School | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| George Mason University | 612 | 43 | 4 | 93 | 17 | 393 | 0 | 62 |
| Hampton University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hollins College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Institute of Textile Technology | 28 | 3 | 0 | 0 | 0 | 25 | 0 | 0 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Virginia, continued: | | | | | | | | |
| James Madison University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Old Dominion University | 379 | 17 | 4 | 9 | 9 | 211 | 11 | 118 |
| Radford University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Richmond | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Virginia | 584 | 31 | 0 | 26 | 7 | 402 | 7 | 111 |
| Virginia Commonwealth University | 22 | 1 | 0 | 0 | 0 | 8 | 0 | 13 |
| Virginia Polytechnic Inst and State Univ | 1,596 | 45 | 5 | 79 | 32 | 900 | 0 | 535 |
| Virginia State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Virginia | 616 | 12 | 1 | 31 | 10 | 352 | 0 | 210 |
| Marshall University | 45 | 0 | 0 | 1 | 0 | 44 | 0 | 0 |
| University of Charleston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Virginia Graduate College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Virginia University | 555 | 12 | 1 | 16 | 10 | 306 | 0 | 210 |
| West Virginia University Institute of Te | 16 | 0 | 0 | 14 | 0 | 2 | 0 | 0 |
| East South Central | 4,308 | 235 | 11 | 255 | 47 | 2,433 | 65 | 1,262 |
| Alabama | 1,421 | 114 | 3 | 99 | 15 | 811 | 20 | 359 |
| Alabama A&M University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Alabama State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Auburn University | 426 | 19 | 0 | 5 | 4 | 233 | 3 | 162 |
| Jacksonville State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Troy State University in Montgomery | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tuskegee University | 47 | 34 | 0 | 4 | 0 | 0 | 9 | 0 |
| University of Alabama at Birmingham, The | 224 | 29 | 0 | 24 | 4 | 147 | 2 | 18 |
| University of Alabama in Huntsville, The | 410 | 22 | 3 | 24 | 6 | 293 | 0 | 62 |
| University of Alabama, The | 261 | 9 | 0 | 40 | 1 | 123 | 6 | 82 |
| University of Montevallo | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of South Alabama | 53 | 1 | 0 | 2 | 0 | 15 | 0 | 35 |
| Kentucky | 773 | 25 | 2 | 33 | 10 | 429 | 14 | 260 |
| Eastern Kentucky University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Morehead State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Murray State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spalding University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Kentucky | 353 | 2 | 0 | 7 | 1 | 148 | 14 | 181 |
| University of Louisville | 420 | 23 | 2 | 26 | 9 | 281 | 0 | 79 |
| Western Kentucky University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mississippi | 413 | 14 | 0 | 24 | 6 | 210 | 7 | 152 |
| Jackson State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mississippi State University | 316 | 13 | 0 | 13 | 5 | 174 | 0 | 111 |
| Mississippi University for Women | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Mississippi | 97 | 1 | 0 | 11 | 1 | 36 | 7 | 41 |
| University of Southern Mississippi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tennessee | 1,701 | 82 | 6 | 99 | 16 | 983 | 24 | 491 |
| Austin Peay State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| East Tennessee State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fisk University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Memphis Medical College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Middle Tennessee State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tennessee State University | 82 | 20 | 0 | 0 | 0 | 17 | 0 | 45 |
| Tennessee Technological University | 159 | 3 | 0 | 0 | 1 | 71 | 0 | 84 |
| University of Memphis | 374 | 14 | 1 | 50 | 7 | 208 | 19 | 75 |
| University of Tennessee at Chattanooga | 104 | 6 | 0 | 6 | 2 | 67 | 0 | 23 |
| University of Tennessee at Knoxville | 603 | 18 | 3 | 19 | 2 | 446 | 0 | 115 |
| University of Tennessee, Memphis | 45 | 2 | 0 | 1 | 1 | 20 | 0 | 21 |
| Vanderbilt University | 334 | 19 | 2 | 23 | 3 | 154 | 5 | 128 |
| West South Central | 9,546 | 203 | 31 | 768 | 431 | 3,960 | 412 | 3,741 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Arkansas | 457 | 15 | 1 | 27 | 9 | 270 | 6 | 129 |
| Arkansas State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Arkansas - Med Sci Campus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Arkansas Main | 457 | 15 | 1 | 27 | 9 | 270 | 6 | 129 |
| University of Arkansas at Little Rock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Central Arkansas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Louisiana | 1,065 | 29 | 2 | 38 | 21 | 403 | 10 | 562 |
| Grambling State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Louisiana State University | 597 | 15 | 2 | 26 | 15 | 188 | 10 | 341 |
| Louisiana Tech University | 215 | 1 | 0 | 3 | 1 | 88 | 0 | 122 |
| Loyola University New Orleans | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| McNeese State University | 12 | 1 | 0 | 2 | 0 | 9 | 0 | 0 |
| Nicholls State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northeast Louisiana University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northwestern State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southeastern Louisiana University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southern University A & M, All Campuses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tulane University | 156 | 10 | 0 | 4 | 5 | 80 | 0 | 57 |
| University of Southwestern Louisiana | 85 | 2 | 0 | 3 | 0 | 38 | 0 | 42 |
| Xavier University of Louisiana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oklahoma | 1,056 | 16 | 11 | 38 | 9 | 386 | 9 | 587 |
| East Central University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Northeastern State University | 53 | 0 | 0 | 0 | 0 | 43 | 0 | 10 |
| Oklahoma State University | 513 | 6 | 6 | 21 | 4 | 199 | 6 | 271 |
| Oral Roberts University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southwestern Oklahoma State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Oklahoma | 370 | 10 | 5 | 13 | 5 | 121 | 1 | 215 |
| University of Tulsa | 120 | 0 | 0 | 4 | 0 | 23 | 2 | 91 |
| Texas | 6,968 | 143 | 17 | 665 | 392 | 2,901 | 387 | 2,463 |
| Abilene Christian University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Angelo State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Baylor College of Dentistry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Baylor College of Medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Baylor University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lamar University | 107 | 1 | 1 | 10 | 1 | 20 | 0 | 74 |
| Midwestern State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Prairie View A&M University | 14 | 5 | 0 | 1 | 1 | 0 | 0 | 7 |
| Rice University | 226 | 4 | 2 | 22 | 3 | 83 | 1 | 111 |
| Sam Houston State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southern Methodist University | 754 | 39 | 2 | 99 | 45 | 481 | 0 | 88 |
| Southwest Texas State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| St. Mary's University | 77 | 0 | 0 | 0 | 7 | 59 | 0 | 11 |
| Stephen F. Austin State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sul Ross State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tarleton State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Texas A&M University | 1,489 | 38 | 1 | 47 | 56 | 546 | 350 | 451 |
| Texas A&M University-Commerce | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Texas A&M University-Corpus Christi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Texas A&M University-Kingsville | 146 | 0 | 0 | 1 | 32 | 25 | 0 | 88 |
| Texas Christian University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Texas Southern University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Texas Tech University | 393 | 1 | 1 | 7 | 10 | 163 | 7 | 204 |
| Texas Woman's University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Trinity University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| U of North TX Hlth Sci Ctr at Ft Worth | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Texas Hlth Sci Ctr San Antonio | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Texas Hlth Sci Ctr at Houston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Texas M.D. Anderson Cancer Ctr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Texas Med Branch at Galveston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Texas SW Medical Ctr at Dallas | 24 | 1 | 0 | 3 | 0 | 11 | 0 | 9 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|---------------|---|--------------------------------|------------------------|------------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Texas, continued: | | | | | | | | |
| University of Central Texas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Houston | 700 | 15 | 0 | 216 | 27 | 266 | 4 | 172 |
| University of Houston - Victoria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Houston Clear Lake | 104 | 5 | 1 | 12 | 6 | 66 | 0 | 14 |
| University of Incarnate Word | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of North Texas | 21 | 0 | 1 | 0 | 2 | 11 | 1 | 6 |
| University of Texas at Arlington | 587 | 10 | 3 | 72 | 18 | 243 | 0 | 241 |
| University of Texas at Austin | 1,731 | 18 | 3 | 118 | 60 | 731 | 0 | 801 |
| University of Texas at Dallas | 220 | 3 | 0 | 40 | 7 | 83 | 0 | 87 |
| University of Texas at El Paso | 236 | 0 | 1 | 7 | 93 | 38 | 0 | 97 |
| University of Texas at San Antonio | 116 | 3 | 1 | 10 | 22 | 56 | 24 | 0 |
| University of Texas at Tyler | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| University of Texas of the Permian Basin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Texas-Pan American | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Texas A&M University | 20 | 0 | 0 | 0 | 2 | 16 | 0 | 2 |
| Mountain | 6,943 | 65 | 29 | 333 | 224 | 3,788 | 322 | 2,182 |
| Arizona | 1,781 | 22 | 5 | 89 | 51 | 769 | 62 | 783 |
| Arizona State University | 1,169 | 14 | 2 | 54 | 35 | 479 | 55 | 530 |
| Northern Arizona University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Arizona | 612 | 8 | 3 | 35 | 16 | 290 | 7 | 253 |
| Colorado | 2,443 | 32 | 7 | 148 | 69 | 1,524 | 68 | 595 |
| Colorado School of Mines | 281 | 1 | 1 | 12 | 6 | 147 | 9 | 105 |
| Colorado State University | 400 | 4 | 1 | 9 | 8 | 227 | 0 | 151 |
| National Technological University | 588 | 16 | 3 | 68 | 19 | 394 | 26 | 62 |
| University of Colorado | 1,156 | 11 | 2 | 59 | 36 | 746 | 33 | 269 |
| University of Denver | 18 | 0 | 0 | 0 | 0 | 10 | 0 | 8 |
| University of Northern Colorado | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Idaho | 342 | 2 | 0 | 8 | 8 | 264 | 1 | 59 |
| Idaho State University | 38 | 1 | 0 | 1 | 3 | 26 | 0 | 7 |
| University of Idaho | 304 | 1 | 0 | 7 | 5 | 238 | 1 | 52 |
| Montana | 167 | 0 | 2 | 0 | 2 | 133 | 2 | 28 |
| Montana State University-Bozeman | 122 | 0 | 2 | 0 | 2 | 91 | 0 | 27 |
| Montana Tech of the Univ of Montana | 45 | 0 | 0 | 0 | 0 | 42 | 2 | 1 |
| University of Montana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nevada | 284 | 3 | 2 | 23 | 3 | 144 | 23 | 86 |
| University of Nevada at Las Vegas | 126 | 3 | 0 | 17 | 1 | 69 | 16 | 20 |
| University of Nevada, Reno | 158 | 0 | 2 | 6 | 2 | 75 | 7 | 66 |
| New Mexico | 710 | 6 | 10 | 21 | 76 | 234 | 130 | 233 |
| Eastern New Mexico University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Mexico Highlands University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Mexico Institute of Mining and Tech | 59 | 0 | 0 | 0 | 1 | 20 | 3 | 35 |
| New Mexico State University | 259 | 3 | 3 | 3 | 30 | 1 | 126 | 93 |
| University of New Mexico | 392 | 3 | 7 | 18 | 45 | 213 | 1 | 105 |
| Utah | 1,091 | 0 | 2 | 32 | 12 | 651 | 25 | 369 |
| Brigham Young University | 307 | 0 | 0 | 18 | 7 | 249 | 3 | 30 |
| University of Utah | 475 | 0 | 1 | 13 | 5 | 244 | 22 | 190 |
| Utah State University | 309 | 0 | 1 | 1 | 0 | 158 | 0 | 149 |
| Wyoming | 125 | 0 | 1 | 12 | 3 | 69 | 11 | 29 |
| University of Wyoming | 125 | 0 | 1 | 12 | 3 | 69 | 11 | 29 |
| Pacific | 14,691 | 263 | 60 | 2,523 | 528 | 5,459 | 822 | 5,036 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Alaska | 128 | 1 | 3 | 7 | 0 | 88 | 5 | 24 |
| University of Alaska Anchorage | 57 | 0 | 3 | 3 | 0 | 49 | 2 | 0 |
| University of Alaska Fairbanks | 71 | 1 | 0 | 4 | 0 | 39 | 3 | 24 |
| University of Alaska Southeast | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| California | 12,174 | 232 | 47 | 2,187 | 501 | 4,270 | 711 | 4,226 |
| Azusa Pacific University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Biola University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cal Schl of Prof Psych Berkeley/Alameda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Calif Poly State Univ, San Luis Obispo | 87 | 0 | 0 | 1 | 0 | 57 | 0 | 29 |
| Calif Sch of Prof Psych - Fresno | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Calif Sch of Prof Psych - Los Angeles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Calif Sch of Prof Psych - San Diego | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Calif State Univ at Dominguez Hills | 31 | 3 | 1 | 5 | 4 | 7 | 3 | 8 |
| Calif State Univ at Fullerton | 155 | 1 | 0 | 34 | 5 | 43 | 10 | 62 |
| Calif State Univ at Los Angeles | 107 | 2 | 0 | 41 | 17 | 15 | 5 | 27 |
| Calif State University at Sacramento | 236 | 4 | 3 | 52 | 30 | 80 | 25 | 42 |
| Calif State University, Stanislaus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| California Institute of Integral Studies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| California Institute of Technology | 384 | 2 | 0 | 25 | 12 | 160 | 0 | 185 |
| California State Poly University, Pomona | 239 | 6 | 1 | 82 | 16 | 73 | 27 | 34 |
| California State Univ - Bakersfield | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| California State Univ, San Bernadino | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| California State University, Chico | 9 | 0 | 0 | 1 | 0 | 3 | 1 | 4 |
| California State University, Fresno | 11 | 0 | 0 | 2 | 0 | 5 | 4 | 0 |
| California State University, Hayward | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| California State University, Long Beach | 351 | 6 | 2 | 96 | 28 | 125 | 36 | 58 |
| California State University, Northridge | 361 | 13 | 3 | 83 | 30 | 154 | 64 | 14 |
| Chapman University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Charles R. Drew Univ of Medicine & Sci | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Claremont Graduate School | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dominican College of San Rafael | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fielding Institute, The | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fuller Theological Seminary | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Golden Gate University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Harvey Mudd College | 5 | 0 | 0 | 3 | 0 | 2 | 0 | 0 |
| Humboldt State University | 34 | 1 | 1 | 2 | 1 | 21 | 6 | 2 |
| John F Kennedy University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Loma Linda University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Loyola Marymount University | 73 | 3 | 3 | 15 | 9 | 29 | 11 | 3 |
| National University | 99 | 5 | 0 | 23 | 6 | 49 | 3 | 13 |
| Northrop University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Occidental College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacific Graduate School of Psychology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacific States University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pepperdine University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RAND Graduate School of Policy Studies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| San Diego State University | 233 | 7 | 1 | 41 | 24 | 85 | 48 | 27 |
| San Francisco State University | 36 | 0 | 1 | 8 | 6 | 8 | 6 | 7 |
| San Jose State University | 820 | 16 | 0 | 299 | 27 | 165 | 66 | 247 |
| Santa Clara University | 423 | 7 | 0 | 128 | 13 | 135 | 50 | 90 |
| Sonoma State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stanford University | 2,336 | 55 | 5 | 330 | 94 | 861 | 109 | 882 |
| US International University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US Naval Postgraduate School | 414 | 2 | 0 | 20 | 2 | 184 | 0 | 206 |
| University of Calif at Berkeley | 1,557 | 45 | 8 | 228 | 57 | 662 | 55 | 502 |
| University of Calif at Davis | 578 | 4 | 13 | 77 | 20 | 274 | 47 | 143 |
| University of Calif at Riverside | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Calif at San Diego | 427 | 6 | 1 | 63 | 14 | 201 | 30 | 112 |
| University of Calif at San Francisco | 33 | 2 | 0 | 9 | 2 | 20 | 0 | 0 |
| University of Calif at Santa Barbara | 376 | 4 | 1 | 28 | 7 | 169 | 18 | 149 |
| University of Calif at Santa Cruz | 73 | 0 | 0 | 11 | 3 | 24 | 6 | 29 |
| University of California, Irvine | 306 | 2 | 0 | 87 | 8 | 86 | 27 | 96 |
| University of California, Los Angeles | 738 | 13 | 3 | 181 | 30 | 196 | 37 | 278 |

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

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| Division, State, and institution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------------|---|--------------------------------|------------------------|------------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| California, continued: | | | | | | | | |
| University of La Verne | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Redlands | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of San Diego | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of San Francisco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Southern California | 1,642 | 23 | 0 | 212 | 36 | 377 | 17 | 977 |
| University of the Pacific | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Coast University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Whittier College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wright Institute, The | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hawaii | 201 | 1 | 0 | 59 | 2 | 27 | 1 | 111 |
| University of Hawaii at Manoa | 201 | 1 | 0 | 59 | 2 | 27 | 1 | 111 |
| Oregon | 834 | 3 | 3 | 168 | 8 | 351 | 52 | 249 |
| Oregon Grad Inst of Science & Technology | 127 | 2 | 0 | 78 | 1 | 42 | 4 | 0 |
| Oregon Health Sciences University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oregon State University | 454 | 0 | 2 | 78 | 5 | 191 | 36 | 142 |
| Pacific University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Portland State University | 244 | 1 | 1 | 12 | 2 | 117 | 12 | 99 |
| Southern Oregon State College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Oregon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Portland | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 8 |
| Washington | 1,354 | 26 | 7 | 102 | 17 | 723 | 53 | 426 |
| Central Washington University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eastern Washington University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gonzaga University | 10 | 0 | 0 | 4 | 0 | 5 | 0 | 1 |
| Pacific Lutheran University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Saint Martin's College | 25 | 0 | 0 | 1 | 0 | 24 | 0 | 0 |
| Seattle University | 80 | 9 | 1 | 6 | 0 | 45 | 10 | 9 |
| University of Washington | 992 | 16 | 6 | 84 | 15 | 521 | 40 | 310 |
| Walla Walla College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Washington State University | 247 | 1 | 0 | 7 | 2 | 128 | 3 | 106 |
| Western Washington University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Whitworth College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Outlying Areas | 283 | 0 | 0 | 0 | 168 | 49 | 0 | 66 |
| Guam | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Guam | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Puerto Rico | 283 | 0 | 0 | 0 | 168 | 49 | 0 | 66 |
| Caribbean Center for Advanced Studies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ponce School of Medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| The Pontifical Cath Univ of Puerto Rico | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Univ of Puerto Rico Mayaguez Campus | 283 | 0 | 0 | 0 | 168 | 49 | 0 | 66 |
| Univ of Puerto Rico Rio Piedras Campus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University of Puerto Rico Med Sci Campus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NOTES: Includes medical schools

For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions,
by detailed field: 1990-97**

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 400,371 | 415,509 | 434,505 | 442,512 | 442,915 | 437,217 | 431,694 | 424,650 |
| Total, science and engineering fields | 352,804 | 365,499 | 380,923 | 384,986 | 381,554 | 372,994 | 366,805 | 359,476 |
| Sciences, total | 252,754 | 260,087 | 271,434 | 276,248 | 276,078 | 273,077 | 270,360 | 264,995 |
| Physical sciences, total | 32,539 | 33,007 | 33,691 | 33,583 | 32,768 | 31,791 | 30,832 | 29,652 |
| Astronomy | 810 | 829 | 869 | 880 | 973 | 912 | 874 | 778 |
| Chemistry | 18,140 | 18,384 | 18,916 | 19,072 | 18,760 | 18,540 | 18,321 | 17,774 |
| Physics | 13,380 | 13,600 | 13,692 | 13,423 | 12,752 | 12,073 | 11,404 | 10,901 |
| Physical sciences, n.e.c. | 209 | 194 | 214 | 208 | 283 | 266 | 233 | 199 |
| Earth, atmos., & ocean sci., total | 12,898 | 13,209 | 13,855 | 14,134 | 14,327 | 14,144 | 13,682 | 12,986 |
| Atmospheric sciences | 925 | 956 | 1,076 | 1,095 | 1,090 | 1,062 | 1,079 | 1,081 |
| Geosciences | 7,260 | 7,131 | 7,305 | 7,360 | 7,299 | 7,156 | 6,875 | 6,543 |
| Oceanography | 2,216 | 2,274 | 2,402 | 2,473 | 2,678 | 2,549 | 2,462 | 2,313 |
| Earth, atmos., & ocean sci., n.e.c. | 2,497 | 2,848 | 3,072 | 3,206 | 3,260 | 3,377 | 3,266 | 3,049 |
| Mathematical sciences, total | 17,586 | 17,910 | 18,242 | 17,763 | 17,440 | 16,408 | 15,995 | 14,863 |
| Mathematics & applied mathematics | 14,955 | 15,212 | 15,356 | 14,786 | 14,402 | 13,380 | 13,003 | 12,232 |
| Statistics | 2,631 | 2,698 | 2,886 | 2,977 | 3,038 | 3,028 | 2,992 | 2,631 |
| Computer sciences | 28,237 | 28,423 | 29,900 | 30,220 | 28,866 | 28,270 | 29,111 | 30,106 |
| Agricultural sciences | 10,662 | 10,847 | 11,183 | 11,252 | 11,474 | 11,593 | 11,229 | 11,078 |
| Biological sciences, total | 46,577 | 48,284 | 50,375 | 52,275 | 53,833 | 54,109 | 53,680 | 52,870 |
| Anatomy | 1,000 | 1,051 | 1,030 | 1,027 | 1,079 | 1,056 | 1,111 | 1,094 |
| Biochemistry | 5,005 | 5,160 | 5,333 | 5,455 | 5,567 | 5,493 | 5,203 | 5,040 |
| Biology | 10,363 | 10,628 | 11,068 | 11,308 | 11,188 | 11,004 | 11,312 | 11,502 |
| Biometry/epidemiology | 1,871 | 2,031 | 2,365 | 2,658 | 2,710 | 2,812 | 3,001 | 2,900 |
| Biophysics | 642 | 697 | 751 | 780 | 794 | 845 | 833 | 748 |
| Botany | 2,712 | 2,673 | 2,665 | 2,705 | 2,741 | 2,605 | 2,501 | 2,396 |
| Cell biology | 2,555 | 2,809 | 3,093 | 3,362 | 3,753 | 3,874 | 3,870 | 3,807 |
| Ecology | 1,042 | 1,079 | 1,155 | 1,251 | 1,420 | 1,508 | 1,497 | 1,511 |
| Entomology/parasitology | 1,173 | 1,171 | 1,193 | 1,247 | 1,263 | 1,241 | 1,234 | 1,161 |
| Genetics | 1,364 | 1,478 | 1,599 | 1,733 | 1,649 | 1,651 | 1,679 | 1,713 |
| Microbio., immunology, & virology | 4,830 | 4,890 | 4,932 | 5,037 | 5,114 | 5,045 | 4,937 | 4,829 |
| Nutrition | 3,959 | 3,936 | 3,866 | 4,034 | 4,244 | 4,449 | 4,365 | 4,224 |
| Pathology | 1,287 | 1,378 | 1,379 | 1,485 | 1,603 | 1,575 | 1,583 | 1,621 |
| Pharmacology | 2,353 | 2,432 | 2,529 | 2,643 | 2,830 | 2,700 | 2,652 | 2,582 |
| Physiology | 2,236 | 2,332 | 2,317 | 2,372 | 2,378 | 2,540 | 2,377 | 2,298 |
| Zoology | 2,091 | 2,168 | 2,117 | 2,115 | 2,085 | 2,063 | 1,907 | 1,723 |
| Biosciences, n.e.c. | 2,094 | 2,371 | 2,983 | 3,063 | 3,415 | 3,648 | 3,618 | 3,721 |
| Psychology, total | 36,022 | 37,915 | 39,312 | 39,539 | 39,688 | 39,071 | 38,721 | 39,110 |
| Psychology, general | 14,310 | 13,537 | 13,474 | 12,957 | 12,688 | 12,143 | 11,333 | 11,773 |
| Clinical psychology | 8,694 | 9,512 | 10,473 | 10,774 | 10,774 | 10,842 | 11,116 | 11,304 |
| Psychology, n.e.c. | 13,018 | 14,866 | 15,365 | 15,808 | 16,226 | 16,086 | 16,272 | 16,033 |
| Social sciences, total | 68,233 | 70,492 | 74,876 | 77,482 | 77,682 | 77,691 | 77,110 | 74,330 |
| Agricultural economics | 2,232 | 2,311 | 2,454 | 2,334 | 2,222 | 2,292 | 2,085 | 2,015 |
| Anthropology (cultural & social) | 6,249 | 6,480 | 6,862 | 7,114 | 7,414 | 7,419 | 7,491 | 7,236 |
| Economics (except agricultural) | 11,630 | 11,946 | 12,400 | 12,415 | 12,197 | 11,933 | 11,369 | 10,479 |
| Geography | 2,990 | 3,203 | 3,504 | 3,751 | 3,863 | 3,834 | 3,827 | 3,760 |
| History and philosophy of science | 331 | 337 | 360 | 369 | 387 | 401 | 409 | 443 |
| Linguistics | 3,114 | 3,135 | 2,930 | 2,947 | 2,937 | 2,857 | 2,848 | 2,733 |
| Political science | 25,315 | 26,280 | 28,197 | 29,390 | 28,596 | 28,304 | 27,482 | 25,983 |
| Sociology | 7,062 | 7,489 | 8,003 | 8,347 | 8,359 | 8,385 | 8,249 | 8,180 |
| Sociology/anthropology | 1,077 | 824 | 902 | 841 | 877 | 840 | 850 | 874 |
| Social sciences, n.e.c. | 8,233 | 8,487 | 9,264 | 9,974 | 10,830 | 11,426 | 12,500 | 12,627 |
| Engineering, total | 100,050 | 105,412 | 109,489 | 108,738 | 105,476 | 99,917 | 96,445 | 94,481 |
| Aerospace engineering | 3,843 | 4,053 | 3,999 | 3,905 | 3,653 | 3,287 | 3,140 | 3,029 |
| Agricultural engineering | 946 | 983 | 1,008 | 1,018 | 1,061 | 1,037 | 1,012 | 941 |
| Biomedical engineering | 2,073 | 2,191 | 2,485 | 2,613 | 2,674 | 2,662 | 2,685 | 2,785 |
| Chemical engineering | 6,621 | 7,002 | 7,259 | 7,396 | 7,502 | 7,310 | 7,258 | 7,125 |
| Civil engineering | 14,520 | 16,122 | 18,035 | 18,015 | 18,407 | 17,795 | 17,231 | 15,904 |
| Electrical engineering | 30,736 | 32,035 | 33,115 | 32,281 | 30,264 | 28,013 | 27,156 | 28,093 |
| Engineering science | 2,002 | 2,124 | 2,185 | 2,148 | 2,069 | 1,945 | 1,741 | 1,636 |
| Industrial/manufacturing eng. | 10,125 | 11,520 | 12,371 | 12,467 | 12,575 | 11,981 | 11,350 | 10,657 |
| Mechanical engineering | 15,762 | 16,638 | 17,538 | 17,461 | 16,886 | 15,625 | 14,753 | 14,278 |
| Metallurgical/materials eng. | 4,836 | 5,035 | 5,353 | 5,216 | 5,071 | 4,821 | 4,643 | 4,572 |
| Mining engineering | 409 | 475 | 426 | 411 | 399 | 362 | 351 | 333 |
| Nuclear engineering | 1,278 | 1,282 | 1,286 | 1,306 | 1,246 | 1,154 | 980 | 868 |
| Petroleum engineering | 662 | 699 | 729 | 717 | 612 | 594 | 551 | 561 |
| Engineering, n.e.c. | 6,237 | 5,253 | 3,700 | 3,784 | 3,057 | 3,331 | 3,594 | 3,699 |

See explanatory information, if any, and SOURCE at end of table.

**Table 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions,
by detailed field: 1990-97**

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, health fields | 47,567 | 50,010 | 53,582 | 57,526 | 61,361 | 64,223 | 64,889 | 65,174 |
| Medical fields, total | 10,598 | 11,218 | 11,978 | 13,349 | 14,182 | 14,725 | 14,587 | 14,268 |
| Anesthesiology | 329 | 443 | 511 | 494 | 516 | 529 | 647 | 616 |
| Cardiology | 0 | 2 | 8 | 11 | 14 | 19 | 18 | 48 |
| Oncology/cancer research | 113 | 156 | 197 | 209 | 208 | 189 | 185 | 198 |
| Endocrinology | 74 | 66 | 71 | 63 | 63 | 53 | 46 | 43 |
| Gastroenterology | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| Hematology | 4 | 4 | 5 | 3 | 2 | 1 | 3 | 3 |
| Neurology | 844 | 1,003 | 1,149 | 1,311 | 1,455 | 1,554 | 1,632 | 1,696 |
| Obstetrics and gynecology | 5 | 10 | 3 | 3 | 4 | 6 | 4 | 18 |
| Ophthalmology | 37 | 32 | 27 | 19 | 32 | 30 | 33 | 33 |
| Otorhinolaryngology | 4 | 3 | 0 | 1 | 2 | 0 | 0 | 2 |
| Pediatrics | 140 | 153 | 154 | 196 | 261 | 238 | 275 | 434 |
| Preventive medicine/community health | 8,031 | 8,183 | 8,533 | 9,595 | 10,078 | 10,575 | 10,205 | 9,518 |
| Psychiatry | 71 | 46 | 96 | 103 | 144 | 158 | 131 | 156 |
| Pulmonary disease | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Radiology | 196 | 233 | 252 | 287 | 320 | 268 | 227 | 221 |
| Surgery | 65 | 69 | 76 | 82 | 119 | 174 | 167 | 244 |
| Clinical medicine, n.e.c. | 684 | 815 | 896 | 971 | 964 | 931 | 1,014 | 1,035 |
| Other health fields, total | 36,969 | 38,792 | 41,604 | 44,177 | 47,179 | 49,498 | 50,302 | 50,906 |
| Dental sciences | 956 | 1,016 | 1,121 | 1,135 | 1,199 | 1,251 | 1,291 | 1,434 |
| Nursing | 18,633 | 18,949 | 19,938 | 20,801 | 22,688 | 23,564 | 22,314 | 21,583 |
| Pharmaceutical sciences | 2,887 | 2,967 | 2,788 | 2,851 | 2,890 | 2,926 | 2,947 | 3,035 |
| Speech pathology/audiology | 6,386 | 6,722 | 7,503 | 7,992 | 8,418 | 8,669 | 9,173 | 9,435 |
| Veterinary sciences | 881 | 875 | 923 | 853 | 858 | 915 | 932 | 1,160 |
| Health related, n.e.c. | 7,226 | 8,263 | 9,331 | 10,545 | 11,126 | 12,173 | 13,645 | 14,259 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 33. Graduate students in science, engineering, and health fields in public doctorate-granting institutions, by detailed field: 1990-97

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 279,405 | 290,245 | 303,624 | 308,672 | 309,147 | 304,963 | 300,476 | 294,958 |
| Total, science and engineering fields | 243,607 | 252,721 | 263,476 | 266,534 | 264,258 | 258,509 | 252,969 | 247,633 |
| Sciences, total | 173,374 | 177,994 | 185,424 | 188,686 | 188,705 | 186,720 | 183,893 | 180,131 |
| Physical sciences, total | 23,389 | 23,716 | 24,260 | 24,262 | 23,666 | 23,104 | 22,319 | 21,464 |
| Astronomy | 536 | 546 | 561 | 579 | 591 | 556 | 525 | 471 |
| Chemistry | 13,008 | 13,132 | 13,589 | 13,758 | 13,560 | 13,503 | 13,298 | 12,974 |
| Physics | 9,657 | 9,844 | 9,896 | 9,717 | 9,249 | 8,798 | 8,269 | 7,825 |
| Physical sciences, n.e.c. | 188 | 194 | 214 | 208 | 266 | 247 | 227 | 194 |
| Earth, atmos., & ocean sci., total | 10,596 | 10,769 | 11,322 | 11,562 | 11,610 | 11,717 | 11,396 | 10,873 |
| Atmospheric sciences | 897 | 936 | 1,051 | 1,077 | 1,071 | 1,037 | 1,059 | 1,057 |
| Geosciences | 5,869 | 5,771 | 5,917 | 5,959 | 5,885 | 5,827 | 5,615 | 5,348 |
| Oceanography | 1,802 | 1,841 | 1,948 | 1,996 | 2,119 | 2,109 | 2,048 | 1,922 |
| Earth, atmos., & ocean sci., n.e.c. | 2,028 | 2,221 | 2,406 | 2,530 | 2,535 | 2,744 | 2,674 | 2,546 |
| Mathematical sciences | 13,523 | 13,729 | 13,946 | 13,576 | 13,224 | 12,327 | 12,030 | 11,135 |
| Computer sciences | 16,501 | 16,847 | 17,490 | 17,708 | 17,149 | 17,118 | 17,278 | 18,355 |
| Agricultural sciences | 10,219 | 10,370 | 10,731 | 10,815 | 11,036 | 11,184 | 10,825 | 10,703 |
| Biological sciences, total | 33,986 | 35,116 | 36,667 | 37,955 | 39,005 | 38,747 | 38,331 | 37,549 |
| Anatomy | 715 | 765 | 742 | 760 | 805 | 779 | 793 | 778 |
| Biochemistry | 3,454 | 3,537 | 3,648 | 3,670 | 3,873 | 3,856 | 3,693 | 3,580 |
| Biology | 7,016 | 7,362 | 7,696 | 7,931 | 7,871 | 7,559 | 7,832 | 7,908 |
| Biometry/epidemiology | 1,082 | 1,225 | 1,562 | 1,728 | 1,732 | 1,724 | 1,777 | 1,734 |
| Biophysics | 356 | 387 | 417 | 426 | 415 | 472 | 459 | 419 |
| Botany | 2,545 | 2,505 | 2,539 | 2,566 | 2,621 | 2,466 | 2,364 | 2,253 |
| Cell biology | 1,442 | 1,587 | 1,824 | 2,077 | 2,270 | 2,342 | 2,371 | 2,333 |
| Ecology | 986 | 991 | 1,066 | 1,162 | 1,314 | 1,406 | 1,399 | 1,421 |
| Entomology/parasitology | 1,105 | 1,102 | 1,127 | 1,186 | 1,193 | 1,179 | 1,171 | 1,101 |
| Genetics | 998 | 1,058 | 1,133 | 1,147 | 1,083 | 1,077 | 1,119 | 1,144 |
| Microbio., immunology, & virology | 3,621 | 3,555 | 3,545 | 3,577 | 3,611 | 3,548 | 3,446 | 3,362 |
| Nutrition | 3,362 | 3,339 | 3,250 | 3,301 | 3,464 | 3,596 | 3,518 | 3,399 |
| Pathology | 900 | 987 | 982 | 982 | 1,046 | 1,023 | 1,026 | 1,010 |
| Pharmacology | 1,634 | 1,672 | 1,757 | 1,871 | 1,979 | 1,872 | 1,797 | 1,750 |
| Physiology | 1,498 | 1,530 | 1,526 | 1,559 | 1,521 | 1,548 | 1,439 | 1,373 |
| Zoology | 1,957 | 2,017 | 1,979 | 1,976 | 1,951 | 1,914 | 1,780 | 1,598 |
| Biosciences, n.e.c. | 1,315 | 1,497 | 1,874 | 2,036 | 2,256 | 2,386 | 2,347 | 2,386 |
| Psychology | 19,178 | 19,486 | 20,310 | 20,085 | 20,101 | 20,076 | 19,401 | 19,969 |
| Social sciences, total | 45,982 | 47,961 | 50,698 | 52,723 | 52,914 | 52,447 | 52,313 | 50,083 |
| Agricultural economics | 2,117 | 2,196 | 2,336 | 2,222 | 2,107 | 2,159 | 1,999 | 1,945 |
| Anthropology (cultural & social) | 4,507 | 4,714 | 4,944 | 5,210 | 5,395 | 5,328 | 5,396 | 5,170 |
| Economics (except agricultural) | 7,349 | 7,695 | 7,992 | 8,100 | 7,998 | 7,723 | 7,347 | 6,715 |
| Geography | 2,803 | 3,004 | 3,201 | 3,425 | 3,529 | 3,540 | 3,509 | 3,467 |
| Linguistics | 2,104 | 2,092 | 2,095 | 2,112 | 2,077 | 2,046 | 1,973 | 1,893 |
| Political science | 15,620 | 16,311 | 17,270 | 17,898 | 17,135 | 16,794 | 16,191 | 15,125 |
| Sociology | 5,226 | 5,650 | 5,923 | 6,171 | 6,174 | 6,180 | 6,136 | 6,049 |
| Sociology/anthropology | 769 | 543 | 622 | 652 | 694 | 652 | 669 | 709 |
| Social sciences, other | 5,487 | 5,756 | 6,315 | 6,933 | 7,805 | 8,025 | 9,093 | 9,010 |
| Engineering, total | 70,233 | 74,727 | 78,052 | 77,848 | 75,553 | 71,789 | 69,076 | 67,502 |
| Aerospace engineering | 2,957 | 3,213 | 3,173 | 3,102 | 2,872 | 2,549 | 2,399 | 2,310 |
| Agricultural engineering | 898 | 943 | 967 | 970 | 1,006 | 981 | 959 | 893 |
| Biomedical engineering | 1,237 | 1,282 | 1,497 | 1,601 | 1,601 | 1,620 | 1,671 | 1,824 |
| Chemical engineering | 4,761 | 5,082 | 5,322 | 5,446 | 5,523 | 5,361 | 5,269 | 5,101 |
| Civil engineering | 11,029 | 12,205 | 13,651 | 13,612 | 13,746 | 13,419 | 13,073 | 12,172 |
| Electrical engineering | 19,688 | 20,877 | 21,904 | 21,556 | 20,559 | 19,265 | 18,244 | 18,886 |
| Engineering science | 1,214 | 1,357 | 1,456 | 1,419 | 1,359 | 1,287 | 1,246 | 1,117 |
| Industrial/manufacturing eng. | 6,780 | 7,939 | 8,685 | 8,841 | 8,814 | 8,198 | 7,766 | 7,239 |
| Mechanical engineering | 11,303 | 12,200 | 13,054 | 12,930 | 12,505 | 11,695 | 11,151 | 10,713 |
| Metallurgical/materials eng. | 3,113 | 3,378 | 3,672 | 3,646 | 3,596 | 3,395 | 3,266 | 3,215 |
| Nuclear engineering | 1,073 | 1,093 | 1,081 | 1,094 | 1,062 | 975 | 826 | 751 |
| Engineering, other | 6,180 | 5,158 | 3,590 | 3,631 | 2,910 | 3,044 | 3,206 | 3,281 |
| Total, health fields | 35,798 | 37,524 | 40,148 | 42,138 | 44,889 | 46,454 | 47,507 | 47,325 |
| Clinical fields | 1,219 | 1,280 | 1,456 | 1,510 | 1,675 | 1,630 | 1,751 | 2,006 |
| Dental sciences | 746 | 791 | 840 | 862 | 919 | 925 | 992 | 1,113 |
| Nursing | 14,366 | 14,810 | 15,609 | 16,333 | 18,116 | 18,654 | 17,881 | 17,267 |
| Pharmaceutical sciences | 2,218 | 2,243 | 2,258 | 2,349 | 2,335 | 2,385 | 2,429 | 2,489 |
| Preventive medicine/community health | 5,505 | 5,687 | 5,875 | 6,479 | 6,570 | 6,979 | 6,820 | 6,127 |
| Speech pathology/audiology | 5,412 | 5,702 | 6,269 | 6,419 | 6,770 | 6,919 | 7,399 | 7,537 |
| Veterinary sciences | 821 | 821 | 880 | 802 | 807 | 875 | 894 | 1,123 |
| Other health fields | 5,511 | 6,190 | 6,961 | 7,384 | 7,697 | 8,087 | 9,341 | 9,663 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 34. Graduate students in science, engineering, and health fields in private doctorate-granting institutions, by detailed field: 1990-97

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 120,966 | 125,264 | 130,881 | 133,840 | 133,768 | 132,254 | 131,218 | 129,692 |
| Total, science and engineering fields | 109,197 | 112,778 | 117,447 | 118,452 | 117,296 | 114,485 | 113,836 | 111,843 |
| Sciences, total | 79,380 | 82,093 | 86,010 | 87,562 | 87,373 | 86,357 | 86,467 | 84,864 |
| Physical sciences, total | 9,150 | 9,291 | 9,431 | 9,321 | 9,102 | 8,687 | 8,513 | 8,188 |
| Astronomy | 274 | 283 | 308 | 301 | 382 | 356 | 349 | 307 |
| Chemistry | 5,132 | 5,252 | 5,327 | 5,314 | 5,200 | 5,037 | 5,023 | 4,800 |
| Physics | 3,723 | 3,756 | 3,796 | 3,706 | 3,503 | 3,275 | 3,135 | 3,076 |
| Physical sciences, n.e.c. | 21 | 0 | 0 | 0 | 17 | 19 | 6 | 5 |
| Earth, atmos., & ocean sci., total | 2,302 | 2,440 | 2,533 | 2,572 | 2,717 | 2,427 | 2,286 | 2,113 |
| Atmospheric sciences | 28 | 20 | 25 | 18 | 19 | 25 | 20 | 24 |
| Geosciences | 1,391 | 1,360 | 1,388 | 1,401 | 1,414 | 1,329 | 1,260 | 1,195 |
| Oceanography | 414 | 433 | 454 | 477 | 559 | 440 | 414 | 391 |
| Earth, atmos., & ocean sci., n.e.c. | 469 | 627 | 666 | 676 | 725 | 633 | 592 | 503 |
| Mathematical sciences | 4,063 | 4,181 | 4,296 | 4,187 | 4,216 | 4,081 | 3,965 | 3,728 |
| Computer sciences | 11,736 | 11,576 | 12,410 | 12,512 | 11,717 | 11,152 | 11,833 | 11,751 |
| Agricultural sciences | 443 | 477 | 452 | 437 | 438 | 409 | 404 | 375 |
| Biological sciences, total | 12,591 | 13,168 | 13,708 | 14,320 | 14,828 | 15,362 | 15,349 | 15,321 |
| Anatomy | 285 | 286 | 288 | 267 | 274 | 277 | 318 | 316 |
| Biochemistry | 1,551 | 1,623 | 1,685 | 1,785 | 1,694 | 1,637 | 1,510 | 1,460 |
| Biology | 3,347 | 3,266 | 3,372 | 3,377 | 3,317 | 3,445 | 3,480 | 3,594 |
| Biometry/epidemiology | 789 | 806 | 803 | 930 | 978 | 1,088 | 1,224 | 1,166 |
| Biophysics | 286 | 310 | 334 | 354 | 379 | 373 | 374 | 329 |
| Botany | 167 | 168 | 126 | 139 | 120 | 139 | 137 | 143 |
| Cell biology | 1,113 | 1,222 | 1,269 | 1,285 | 1,483 | 1,532 | 1,499 | 1,474 |
| Ecology | 56 | 88 | 89 | 89 | 106 | 102 | 98 | 90 |
| Entomology/parasitology | 68 | 69 | 66 | 61 | 70 | 62 | 63 | 60 |
| Genetics | 366 | 420 | 466 | 586 | 566 | 574 | 560 | 569 |
| Microbio., immunology, & virology | 1,209 | 1,335 | 1,387 | 1,460 | 1,503 | 1,497 | 1,491 | 1,467 |
| Nutrition | 597 | 597 | 616 | 733 | 780 | 853 | 847 | 825 |
| Pathology | 387 | 391 | 397 | 503 | 557 | 552 | 557 | 611 |
| Pharmacology | 719 | 760 | 772 | 772 | 851 | 828 | 855 | 832 |
| Physiology | 738 | 802 | 791 | 813 | 857 | 992 | 938 | 925 |
| Zoology | 134 | 151 | 138 | 139 | 134 | 149 | 127 | 125 |
| Biosciences, n.e.c. | 779 | 874 | 1,109 | 1,027 | 1,159 | 1,262 | 1,271 | 1,335 |
| Psychology | 16,844 | 18,429 | 19,002 | 19,454 | 19,587 | 18,995 | 19,320 | 19,141 |
| Social sciences, total | 22,251 | 22,531 | 24,178 | 24,759 | 24,768 | 25,244 | 24,797 | 24,247 |
| Agricultural economics | 115 | 115 | 118 | 112 | 115 | 133 | 86 | 70 |
| Anthropology (cultural & social) | 1,742 | 1,766 | 1,918 | 1,904 | 2,019 | 2,091 | 2,095 | 2,066 |
| Economics (except agricultural) | 4,281 | 4,251 | 4,408 | 4,315 | 4,199 | 4,210 | 4,022 | 3,764 |
| Geography | 187 | 199 | 303 | 326 | 334 | 294 | 318 | 293 |
| Linguistics | 1,010 | 1,043 | 835 | 835 | 860 | 811 | 875 | 840 |
| Political science | 9,695 | 9,969 | 10,927 | 11,492 | 11,461 | 11,510 | 11,291 | 10,858 |
| Sociology | 1,836 | 1,839 | 2,080 | 2,176 | 2,185 | 2,205 | 2,113 | 2,131 |
| Sociology/anthropology | 308 | 281 | 280 | 189 | 183 | 188 | 181 | 165 |
| Social sciences, other | 3,077 | 3,068 | 3,309 | 3,410 | 3,412 | 3,802 | 3,816 | 4,060 |
| Engineering, total | 29,817 | 30,685 | 31,437 | 30,890 | 29,923 | 28,128 | 27,369 | 26,979 |
| Aerospace engineering | 886 | 840 | 826 | 803 | 781 | 738 | 741 | 719 |
| Agricultural engineering | 48 | 40 | 41 | 48 | 55 | 56 | 53 | 48 |
| Biomedical engineering | 836 | 909 | 988 | 1,012 | 1,073 | 1,042 | 1,014 | 961 |
| Chemical engineering | 1,860 | 1,920 | 1,937 | 1,950 | 1,979 | 1,949 | 1,989 | 2,024 |
| Civil engineering | 3,491 | 3,917 | 4,384 | 4,403 | 4,661 | 4,376 | 4,158 | 3,732 |
| Electrical engineering | 11,048 | 11,158 | 11,211 | 10,725 | 9,705 | 8,748 | 8,912 | 9,207 |
| Engineering science | 788 | 767 | 729 | 729 | 710 | 658 | 495 | 519 |
| Industrial/manufacturing eng. | 3,345 | 3,581 | 3,686 | 3,626 | 3,761 | 3,783 | 3,584 | 3,418 |
| Mechanical engineering | 4,459 | 4,438 | 4,484 | 4,531 | 4,381 | 3,930 | 3,602 | 3,565 |
| Metallurgical/materials eng. | 1,723 | 1,657 | 1,681 | 1,570 | 1,475 | 1,426 | 1,377 | 1,357 |
| Nuclear engineering | 205 | 189 | 205 | 212 | 184 | 179 | 154 | 117 |
| Engineering, other | 1,128 | 1,269 | 1,265 | 1,281 | 1,158 | 1,243 | 1,290 | 1,312 |
| Total, health fields | 11,769 | 12,486 | 13,434 | 15,388 | 16,472 | 17,769 | 17,382 | 17,849 |
| Clinical fields | 504 | 752 | 840 | 933 | 974 | 966 | 999 | 1,048 |
| Dental sciences | 210 | 225 | 281 | 273 | 280 | 326 | 299 | 321 |
| Nursing | 4,267 | 4,139 | 4,329 | 4,468 | 4,572 | 4,910 | 4,433 | 4,316 |
| Pharmaceutical sciences | 669 | 724 | 530 | 502 | 555 | 541 | 518 | 546 |
| Preventive medicine/community health | 2,526 | 2,496 | 2,658 | 3,116 | 3,508 | 3,596 | 3,385 | 3,391 |
| Speech pathology/audiology | 974 | 1,020 | 1,234 | 1,573 | 1,648 | 1,750 | 1,774 | 1,898 |
| Veterinary sciences | 60 | 54 | 43 | 51 | 51 | 40 | 38 | 37 |
| Other health fields | 2,559 | 3,076 | 3,519 | 4,472 | 4,884 | 5,640 | 5,936 | 6,292 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 35. Graduate students in science and engineering fields in doctorate-granting institutions, by enrollment status, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

Page 1 of 1

| Enrollment status, citizenship, and racial/ethnic background | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Total enrollment | 352,804 | 365,499 | 380,923 | 384,986 | 381,554 | 372,994 | 366,805 | 359,476 |
| Total U.S. citizens | 255,314 | 262,381 | 276,665 | 284,023 | 283,764 | 278,480 | 272,978 | 265,081 |
| Black, non-Hispanic | 9,834 | 10,531 | 11,940 | 12,931 | 13,443 | 13,945 | 14,425 | 14,437 |
| American Indian/Alaskan Native | 920 | 937 | 1,030 | 1,098 | 1,198 | 1,274 | 1,315 | 1,363 |
| Asian/Pacific Islander | 14,849 | 15,471 | 18,247 | 20,643 | 23,049 | 22,396 | 22,498 | 22,560 |
| Hispanic | 8,819 | 9,511 | 10,494 | 11,388 | 11,347 | 11,956 | 12,388 | 12,685 |
| White, non-Hispanic | 209,458 | 213,270 | 221,729 | 224,029 | 223,065 | 214,708 | 208,494 | 199,425 |
| Other or unknown | 11,434 | 12,661 | 13,225 | 13,934 | 11,662 | 14,201 | 13,858 | 14,611 |
| Non-U.S. citizens | 97,490 | 103,118 | 104,258 | 100,963 | 97,790 | 94,514 | 93,827 | 94,395 |
| Full-time enrollment | 250,530 | 261,154 | 273,142 | 276,296 | 275,324 | 269,413 | 266,232 | 262,161 |
| Total U.S. citizens | 165,955 | 172,349 | 183,096 | 189,382 | 191,491 | 188,482 | 185,277 | 180,140 |
| Black, non-Hispanic | 6,033 | 6,578 | 7,630 | 8,403 | 8,905 | 9,043 | 9,193 | 9,337 |
| American Indian/Alaskan Native | 608 | 636 | 743 | 812 | 871 | 955 | 977 | 997 |
| Asian/Pacific Islander | 9,968 | 10,520 | 12,390 | 14,236 | 16,108 | 15,650 | 15,639 | 15,722 |
| Hispanic | 5,969 | 6,458 | 6,990 | 7,506 | 7,513 | 8,306 | 8,473 | 8,677 |
| White, non-Hispanic | 137,864 | 141,388 | 148,138 | 150,585 | 151,664 | 146,609 | 143,198 | 137,093 |
| Other or unknown | 5,513 | 6,769 | 7,205 | 7,840 | 6,430 | 7,919 | 7,797 | 8,314 |
| Non-U.S. citizens | 84,575 | 88,805 | 90,046 | 86,914 | 83,833 | 80,931 | 80,955 | 82,021 |
| Part-time enrollment | 102,274 | 104,345 | 107,781 | 108,690 | 106,230 | 103,581 | 100,573 | 97,315 |
| Total U.S. citizens | 89,359 | 90,032 | 93,569 | 94,641 | 92,273 | 89,998 | 87,701 | 84,941 |
| Black, non-Hispanic | 3,801 | 3,953 | 4,310 | 4,528 | 4,538 | 4,902 | 5,232 | 5,100 |
| American Indian/Alaskan Native | 312 | 301 | 287 | 286 | 327 | 319 | 338 | 366 |
| Asian/Pacific Islander | 4,881 | 4,951 | 5,857 | 6,407 | 6,941 | 6,746 | 6,859 | 6,838 |
| Hispanic | 2,850 | 3,053 | 3,504 | 3,882 | 3,834 | 3,650 | 3,915 | 4,008 |
| White, non-Hispanic | 71,594 | 71,882 | 73,591 | 73,444 | 71,401 | 68,099 | 65,296 | 62,332 |
| Other or unknown | 5,921 | 5,892 | 6,020 | 6,094 | 5,232 | 6,282 | 6,061 | 6,297 |
| Non-U.S. citizens | 12,915 | 14,313 | 14,212 | 14,049 | 13,957 | 13,583 | 12,872 | 12,374 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 36. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|---------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, all surveyed fields | 424,650 | 17,857 | 1,667 | 26,347 | 15,356 | 246,945 | 17,457 | 99,021 |
| Total, science and engineering fields | 359,476 | 14,437 | 1,363 | 22,560 | 12,685 | 199,425 | 14,611 | 94,395 |
| Sciences, total | 264,995 | 11,955 | 1,150 | 15,383 | 10,137 | 156,656 | 10,577 | 59,137 |
| Physical sciences, total | 29,652 | 791 | 67 | 1,497 | 736 | 15,058 | 901 | 10,602 |
| Astronomy | 778 | 11 | 1 | 39 | 11 | 514 | 17 | 185 |
| Chemistry | 17,774 | 550 | 48 | 988 | 494 | 9,248 | 533 | 5,913 |
| Physics | 10,901 | 218 | 18 | 454 | 226 | 5,162 | 350 | 4,473 |
| Physical sciences, n.e.c. | 199 | 12 | 0 | 16 | 5 | 134 | 1 | 31 |
| Earth, atmos., & ocean sci., total | 12,986 | 169 | 69 | 354 | 341 | 9,183 | 420 | 2,450 |
| Atmospheric sciences | 1,081 | 12 | 2 | 56 | 12 | 651 | 60 | 288 |
| Geosciences | 6,543 | 53 | 35 | 154 | 147 | 4,665 | 218 | 1,271 |
| Oceanography | 2,313 | 24 | 16 | 56 | 110 | 1,566 | 39 | 502 |
| Earth, atmos., & ocean sci., n.e.c. | 3,049 | 80 | 16 | 88 | 72 | 2,301 | 103 | 389 |
| Mathematical sciences | 14,863 | 506 | 37 | 856 | 321 | 7,387 | 491 | 5,265 |
| Computer sciences | 30,106 | 1,007 | 47 | 3,627 | 561 | 11,770 | 1,714 | 11,380 |
| Agricultural sciences | 11,078 | 167 | 48 | 268 | 364 | 7,246 | 305 | 2,680 |
| Biological sciences, total | 52,870 | 1,871 | 178 | 4,203 | 1,750 | 32,208 | 1,736 | 10,924 |
| Anatomy | 1,094 | 44 | 3 | 107 | 15 | 669 | 34 | 222 |
| Biochemistry | 5,040 | 121 | 13 | 559 | 142 | 2,651 | 163 | 1,391 |
| Biology | 11,502 | 543 | 44 | 679 | 493 | 7,283 | 545 | 1,915 |
| Biometry/epidemiology | 2,900 | 160 | 11 | 314 | 137 | 1,641 | 126 | 511 |
| Biophysics | 748 | 17 | 1 | 86 | 17 | 415 | 41 | 171 |
| Botany | 2,396 | 87 | 3 | 76 | 50 | 1,433 | 55 | 692 |
| Cell biology | 3,807 | 93 | 9 | 328 | 109 | 2,371 | 98 | 799 |
| Ecology | 1,511 | 13 | 8 | 43 | 45 | 1,180 | 56 | 166 |
| Entomology/parasitology | 1,161 | 14 | 1 | 41 | 42 | 749 | 24 | 290 |
| Genetics | 1,713 | 37 | 6 | 129 | 42 | 1,063 | 32 | 404 |
| Microbio., immunology, & virology | 4,829 | 194 | 11 | 478 | 171 | 2,864 | 119 | 992 |
| Nutrition | 4,224 | 184 | 11 | 240 | 133 | 2,506 | 80 | 1,070 |
| Pathology | 1,621 | 39 | 11 | 171 | 44 | 997 | 67 | 292 |
| Pharmacology | 2,582 | 114 | 5 | 245 | 84 | 1,534 | 52 | 548 |
| Physiology | 2,298 | 101 | 7 | 331 | 65 | 1,283 | 87 | 424 |
| Zoology | 1,723 | 14 | 12 | 55 | 30 | 1,386 | 29 | 197 |
| Biosciences, n.e.c. | 3,721 | 96 | 22 | 321 | 131 | 2,183 | 128 | 840 |
| Psychology | 39,110 | 2,229 | 267 | 1,543 | 2,404 | 29,029 | 1,857 | 1,781 |
| Social sciences, total | 74,330 | 5,215 | 437 | 3,035 | 3,660 | 44,775 | 3,153 | 14,055 |
| Agricultural economics | 2,015 | 48 | 3 | 49 | 53 | 900 | 47 | 915 |
| Anthropology (cultural & social) | 7,236 | 247 | 99 | 218 | 309 | 5,436 | 233 | 694 |
| Economics (except agricultural) | 10,479 | 273 | 16 | 493 | 252 | 3,992 | 282 | 5,171 |
| Geography | 3,760 | 64 | 11 | 111 | 81 | 2,831 | 155 | 507 |
| Linguistics | 2,733 | 45 | 7 | 170 | 131 | 1,344 | 129 | 907 |
| Political science | 25,983 | 2,509 | 127 | 1,077 | 1,560 | 16,226 | 1,278 | 3,206 |
| Sociology | 8,180 | 717 | 67 | 366 | 481 | 5,223 | 223 | 1,103 |
| Sociology/anthropology | 874 | 84 | 10 | 21 | 43 | 559 | 66 | 91 |
| Social sciences, other | 13,070 | 1,228 | 97 | 530 | 750 | 8,264 | 740 | 1,461 |
| Engineering, total | 94,481 | 2,482 | 213 | 7,177 | 2,548 | 42,769 | 4,034 | 35,258 |
| Aerospace engineering | 3,029 | 35 | 3 | 148 | 67 | 1,418 | 60 | 1,298 |
| Agricultural engineering | 941 | 21 | 8 | 47 | 17 | 384 | 44 | 420 |
| Biomedical engineering | 2,785 | 83 | 6 | 310 | 54 | 1,522 | 110 | 700 |
| Chemical engineering | 7,125 | 155 | 18 | 495 | 138 | 3,303 | 215 | 2,801 |
| Civil engineering | 15,904 | 385 | 49 | 863 | 610 | 8,551 | 542 | 4,904 |
| Electrical engineering | 28,093 | 720 | 41 | 2,998 | 727 | 10,051 | 1,442 | 12,114 |
| Engineering science | 1,636 | 38 | 4 | 202 | 41 | 873 | 30 | 448 |
| Industrial/manufacturing eng. | 10,657 | 421 | 22 | 656 | 371 | 5,403 | 539 | 3,245 |
| Mechanical engineering | 14,278 | 350 | 34 | 867 | 335 | 6,656 | 526 | 5,510 |
| Metallurgical/materials eng. | 4,572 | 108 | 11 | 282 | 81 | 1,958 | 192 | 1,940 |
| Nuclear engineering | 868 | 21 | 3 | 38 | 22 | 475 | 6 | 303 |
| Engineering, other | 4,593 | 145 | 14 | 271 | 85 | 2,175 | 328 | 1,575 |

See explanatory information, if any, and SOURCE at end of table.

Table 36. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|--------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, health fields | 65,174 | 3,420 | 304 | 3,787 | 2,671 | 47,520 | 2,846 | 4,626 |
| Clinical fields | 3,054 | 172 | 17 | 338 | 101 | 1,912 | 276 | 238 |
| Dental sciences | 1,434 | 25 | 4 | 153 | 57 | 841 | 20 | 334 |
| Nursing | 21,583 | 1,250 | 116 | 761 | 783 | 17,319 | 926 | 428 |
| Pharmaceutical sciences | 3,035 | 131 | 3 | 238 | 135 | 1,242 | 126 | 1,160 |
| Preventive medicine/community health | 9,518 | 759 | 51 | 1,021 | 558 | 5,616 | 424 | 1,089 |
| Speech pathology/audiology | 9,435 | 401 | 44 | 176 | 337 | 7,775 | 398 | 304 |
| Veterinary sciences | 1,160 | 29 | 7 | 26 | 29 | 755 | 14 | 300 |
| Other health fields | 15,955 | 653 | 62 | 1,074 | 671 | 12,060 | 662 | 773 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 37. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1990-97

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 275,433 | 287,809 | 301,772 | 307,693 | 309,329 | 305,659 | 304,234 | 301,573 |
| Total, science and engineering fields | 250,530 | 261,154 | 273,142 | 276,296 | 275,324 | 269,413 | 266,232 | 262,161 |
| Sciences, total | 186,494 | 192,088 | 200,921 | 204,628 | 205,825 | 203,585 | 202,165 | 198,327 |
| Physical sciences, total | 28,855 | 29,453 | 30,074 | 29,946 | 29,361 | 28,233 | 27,317 | 26,268 |
| Astronomy | 790 | 810 | 840 | 848 | 953 | 871 | 854 | 768 |
| Chemistry | 15,987 | 16,337 | 16,654 | 16,800 | 16,701 | 16,338 | 16,073 | 15,583 |
| Physics | 11,977 | 12,198 | 12,452 | 12,180 | 11,543 | 10,850 | 10,243 | 9,795 |
| Physical sciences, n.e.c. | 101 | 108 | 128 | 118 | 164 | 174 | 147 | 122 |
| Earth, atmos., & ocean sci., total | 9,858 | 9,923 | 10,485 | 10,799 | 10,884 | 10,728 | 10,255 | 9,934 |
| Atmospheric sciences | 828 | 857 | 958 | 978 | 981 | 956 | 977 | 964 |
| Geosciences | 5,612 | 5,535 | 5,708 | 5,799 | 5,776 | 5,608 | 5,394 | 5,221 |
| Oceanography | 1,887 | 1,931 | 2,061 | 2,130 | 2,263 | 2,183 | 2,038 | 1,924 |
| Earth, atmos., & ocean sci., n.e.c. | 1,531 | 1,600 | 1,758 | 1,892 | 1,864 | 1,981 | 1,846 | 1,825 |
| Mathematical sciences | 13,269 | 13,627 | 14,016 | 13,844 | 13,499 | 12,743 | 12,324 | 11,538 |
| Computer sciences | 14,898 | 14,870 | 15,769 | 15,827 | 15,389 | 15,216 | 15,633 | 16,488 |
| Agricultural sciences | 8,748 | 8,873 | 9,109 | 9,102 | 9,132 | 9,156 | 8,882 | 8,677 |
| Biological sciences, total | 39,595 | 41,282 | 42,832 | 44,659 | 46,210 | 46,435 | 45,837 | 45,064 |
| Anatomy | 911 | 961 | 960 | 977 | 983 | 978 | 1,042 | 1,033 |
| Biochemistry | 4,810 | 4,940 | 5,030 | 5,138 | 5,201 | 5,165 | 4,949 | 4,776 |
| Biology | 8,037 | 8,292 | 8,444 | 8,634 | 8,694 | 8,562 | 8,539 | 8,800 |
| Biometry/epidemiology | 1,231 | 1,431 | 1,634 | 1,990 | 2,056 | 2,093 | 2,162 | 2,005 |
| Biophysics | 605 | 679 | 728 | 755 | 770 | 800 | 807 | 728 |
| Botany | 2,341 | 2,286 | 2,279 | 2,351 | 2,345 | 2,146 | 2,128 | 2,049 |
| Cell biology | 2,485 | 2,716 | 2,961 | 3,186 | 3,592 | 3,692 | 3,669 | 3,649 |
| Ecology | 878 | 908 | 976 | 1,040 | 1,187 | 1,276 | 1,239 | 1,184 |
| Entomology/parasitology | 997 | 1,014 | 1,016 | 1,039 | 1,066 | 1,041 | 1,027 | 995 |
| Genetics | 1,255 | 1,371 | 1,488 | 1,640 | 1,553 | 1,572 | 1,605 | 1,620 |
| Microbio., immunology, & virology | 4,361 | 4,401 | 4,445 | 4,600 | 4,698 | 4,666 | 4,531 | 4,408 |
| Nutrition | 2,773 | 2,823 | 2,774 | 2,910 | 3,072 | 3,272 | 3,296 | 3,127 |
| Pathology | 1,055 | 1,085 | 1,138 | 1,264 | 1,359 | 1,350 | 1,339 | 1,418 |
| Pharmacology | 2,222 | 2,304 | 2,397 | 2,499 | 2,672 | 2,529 | 2,499 | 2,446 |
| Physiology | 2,076 | 2,163 | 2,160 | 2,220 | 2,221 | 2,376 | 2,217 | 2,103 |
| Zoology | 1,671 | 1,760 | 1,768 | 1,743 | 1,712 | 1,741 | 1,625 | 1,513 |
| Biosciences, n.e.c. | 1,887 | 2,148 | 2,634 | 2,673 | 3,029 | 3,176 | 3,163 | 3,210 |
| Psychology | 25,592 | 26,567 | 27,783 | 28,278 | 28,560 | 28,478 | 28,705 | 28,764 |
| Social sciences, total | 45,679 | 47,493 | 50,853 | 52,173 | 52,790 | 52,596 | 53,212 | 51,594 |
| Agricultural economics | 1,934 | 1,976 | 2,069 | 1,910 | 1,892 | 1,948 | 1,759 | 1,697 |
| Anthropology (cultural & social) | 4,730 | 4,987 | 5,231 | 5,332 | 5,718 | 5,662 | 5,866 | 5,624 |
| Economics (except agricultural) | 9,037 | 9,543 | 9,816 | 9,777 | 9,654 | 9,402 | 9,232 | 8,521 |
| Geography | 2,175 | 2,325 | 2,567 | 2,760 | 2,831 | 2,741 | 2,757 | 2,714 |
| Linguistics | 2,552 | 2,510 | 2,401 | 2,447 | 2,420 | 2,382 | 2,433 | 2,272 |
| Political science | 13,932 | 14,545 | 16,104 | 16,860 | 16,411 | 16,022 | 16,074 | 15,428 |
| Sociology | 5,424 | 5,606 | 6,080 | 6,167 | 6,295 | 6,284 | 6,165 | 6,198 |
| Sociology/anthropology | 706 | 583 | 612 | 613 | 644 | 617 | 590 | 631 |
| Social sciences, other | 5,189 | 5,418 | 5,973 | 6,307 | 6,925 | 7,538 | 8,336 | 8,509 |
| Engineering, total | 64,036 | 69,066 | 72,221 | 71,668 | 69,499 | 65,828 | 64,067 | 63,834 |
| Aerospace engineering | 2,946 | 3,258 | 3,269 | 3,227 | 2,967 | 2,668 | 2,545 | 2,505 |
| Agricultural engineering | 799 | 823 | 840 | 835 | 879 | 859 | 799 | 748 |
| Biomedical engineering | 1,761 | 1,900 | 2,138 | 2,234 | 2,246 | 2,277 | 2,281 | 2,411 |
| Chemical engineering | 5,420 | 5,753 | 5,900 | 6,002 | 6,054 | 5,905 | 5,856 | 5,713 |
| Civil engineering | 9,877 | 10,992 | 12,016 | 11,982 | 12,175 | 11,781 | 11,381 | 10,891 |
| Electrical engineering | 17,957 | 19,199 | 20,232 | 19,669 | 18,719 | 17,569 | 17,389 | 18,301 |
| Engineering science | 1,241 | 1,357 | 1,408 | 1,395 | 1,343 | 1,241 | 1,054 | 1,016 |
| Industrial/manufacturing eng. | 4,488 | 5,397 | 5,843 | 5,682 | 5,685 | 5,104 | 4,960 | 4,910 |
| Mechanical engineering | 10,589 | 11,415 | 12,079 | 12,128 | 11,642 | 10,933 | 10,437 | 10,174 |
| Metallurgical/materials eng. | 3,910 | 4,038 | 4,255 | 4,226 | 4,084 | 3,864 | 3,687 | 3,646 |
| Nuclear engineering | 1,080 | 1,080 | 1,084 | 1,070 | 997 | 883 | 771 | 708 |
| Engineering, other | 3,968 | 3,854 | 3,157 | 3,218 | 2,708 | 2,744 | 2,907 | 2,811 |
| Total, health fields | 24,903 | 26,655 | 28,630 | 31,397 | 34,005 | 36,246 | 38,002 | 39,412 |
| Clinical fields | 1,448 | 1,682 | 1,873 | 2,048 | 2,190 | 2,171 | 2,234 | 2,453 |
| Dental sciences | 827 | 875 | 988 | 1,005 | 1,048 | 1,096 | 1,116 | 1,235 |
| Nursing | 5,568 | 5,674 | 5,627 | 5,975 | 6,770 | 7,211 | 7,195 | 7,512 |
| Pharmaceutical sciences | 2,148 | 2,198 | 2,074 | 2,130 | 2,188 | 2,152 | 2,225 | 2,232 |
| Preventive medicine/community health | 4,462 | 4,371 | 4,750 | 5,240 | 5,342 | 5,850 | 5,688 | 5,437 |
| Speech pathology/audiology | 4,657 | 5,100 | 5,652 | 6,241 | 6,595 | 6,665 | 7,093 | 7,332 |
| Veterinary sciences | 698 | 706 | 743 | 673 | 679 | 719 | 722 | 972 |
| Other health fields | 5,095 | 6,049 | 6,923 | 8,085 | 9,193 | 10,382 | 11,729 | 12,239 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields: | | | | | | | | |
| Total, all sources | 275,433 | 287,809 | 301,772 | 307,693 | 309,329 | 305,659 | 304,234 | 301,573 |
| Federal, total | 58,193 | 61,708 | 64,279 | 66,380 | 67,003 | 65,895 | 64,029 | 63,019 |
| Dept. of Defense | 8,795 | 9,043 | 9,134 | 9,641 | 9,315 | 9,160 | 8,625 | 8,876 |
| Dept. of HHS, total | 19,258 | 20,142 | 21,125 | 21,663 | 22,198 | 22,299 | 21,929 | 21,820 |
| NIH | 14,919 | 15,922 | 16,980 | 17,969 | 18,125 | 17,978 | 17,837 | 17,838 |
| Other HHS | 4,339 | 4,220 | 4,145 | 3,694 | 4,073 | 4,321 | 4,092 | 3,982 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2,226 | 2,501 |
| NSF | 11,981 | 12,598 | 13,293 | 13,410 | 13,764 | 13,538 | 13,339 | 13,264 |
| USDA | 2,687 | 3,042 | 3,168 | 3,271 | 3,364 | 3,200 | 2,946 | 2,594 |
| All other Federal | 15,472 | 16,883 | 17,559 | 18,395 | 18,362 | 17,698 | 14,964 | 13,964 |
| Institutional support | 118,470 | 120,529 | 122,674 | 123,900 | 124,097 | 124,153 | 122,866 | 123,272 |
| Other non-Federal support, total | 25,778 | 26,690 | 27,390 | 26,323 | 26,807 | 25,464 | 24,859 | 24,698 |
| All other U.S. | 19,353 | 20,126 | 21,010 | 20,892 | 21,143 | 19,982 | 19,664 | 19,893 |
| Foreign | 6,425 | 6,564 | 6,380 | 5,431 | 5,664 | 5,482 | 5,195 | 4,805 |
| Self-support | 72,992 | 78,882 | 87,429 | 91,090 | 91,422 | 90,147 | 92,480 | 90,584 |
| Total, science and engineering: | | | | | | | | |
| Total, all sources | 250,530 | 261,154 | 273,142 | 276,296 | 275,324 | 269,413 | 266,232 | 262,161 |
| Federal, total | 51,706 | 55,166 | 57,326 | 59,469 | 59,788 | 58,539 | 57,094 | 55,902 |
| Dept. of Defense | 8,425 | 8,640 | 8,753 | 9,220 | 8,951 | 8,834 | 8,317 | 8,568 |
| Dept. of HHS, total | 14,522 | 15,381 | 16,154 | 16,701 | 17,035 | 17,024 | 16,817 | 16,610 |
| NIH | 13,298 | 14,081 | 14,930 | 15,749 | 15,843 | 15,600 | 15,411 | 15,181 |
| Other HHS | 1,224 | 1,300 | 1,224 | 952 | 1,192 | 1,424 | 1,406 | 1,429 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2,212 | 2,480 |
| NSF | 11,932 | 12,542 | 13,223 | 13,325 | 13,656 | 13,447 | 13,258 | 13,169 |
| USDA | 2,629 | 2,982 | 3,099 | 3,202 | 3,297 | 3,152 | 2,902 | 2,560 |
| All other Federal | 14,198 | 15,621 | 16,097 | 17,021 | 16,849 | 16,082 | 13,588 | 12,515 |
| Institutional support | 111,758 | 113,592 | 115,610 | 116,418 | 116,259 | 115,856 | 114,505 | 114,478 |
| Other non-Federal support, total | 24,431 | 25,185 | 25,717 | 24,615 | 24,990 | 23,535 | 22,904 | 22,782 |
| All other U.S. | 18,459 | 19,079 | 19,793 | 19,622 | 19,780 | 18,572 | 18,136 | 18,464 |
| Foreign | 5,972 | 6,106 | 5,924 | 4,993 | 5,210 | 4,963 | 4,768 | 4,318 |
| Self-support | 62,635 | 67,211 | 74,489 | 75,794 | 74,287 | 71,483 | 71,729 | 68,999 |
| Sciences, total: | | | | | | | | |
| Total, all sources | 186,494 | 192,088 | 200,921 | 204,628 | 205,825 | 203,585 | 202,165 | 198,327 |
| Federal, total | 37,182 | 39,372 | 40,972 | 42,801 | 43,266 | 42,397 | 41,505 | 40,279 |
| Dept. of Defense | 3,743 | 3,808 | 3,843 | 4,143 | 4,303 | 4,101 | 3,857 | 3,850 |
| Dept. of HHS, total | 13,762 | 14,574 | 15,259 | 15,781 | 16,133 | 16,106 | 15,982 | 15,702 |
| NIH | 12,637 | 13,360 | 14,138 | 14,959 | 15,065 | 14,832 | 14,680 | 14,420 |
| Other HHS | 1,125 | 1,214 | 1,121 | 822 | 1,068 | 1,274 | 1,302 | 1,282 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 1,153 | 1,257 |
| NSF | 8,064 | 8,275 | 8,652 | 8,815 | 9,049 | 8,906 | 8,697 | 8,606 |
| USDA | 2,399 | 2,708 | 2,753 | 2,910 | 2,964 | 2,812 | 2,612 | 2,347 |
| All other Federal | 9,214 | 10,007 | 10,465 | 11,152 | 10,817 | 10,472 | 9,204 | 8,517 |
| Institutional support | 88,890 | 89,456 | 91,241 | 91,967 | 92,164 | 92,486 | 91,524 | 91,146 |
| Other non-Federal support, total | 14,136 | 14,671 | 15,281 | 14,969 | 15,706 | 14,512 | 14,100 | 13,820 |
| All other U.S. | 10,143 | 10,635 | 11,351 | 11,595 | 12,090 | 11,179 | 10,858 | 10,918 |
| Foreign | 3,993 | 4,036 | 3,930 | 3,374 | 3,616 | 3,333 | 3,242 | 2,902 |
| Self-support | 46,286 | 48,589 | 53,427 | 54,891 | 54,689 | 54,190 | 55,036 | 53,082 |
| Physical sciences;: | | | | | | | | |
| Total, all sources | 28,855 | 29,453 | 30,074 | 29,946 | 29,361 | 28,233 | 27,317 | 26,268 |
| Federal, total | 10,216 | 10,750 | 10,929 | 11,018 | 10,940 | 10,270 | 9,807 | 9,350 |
| Dept. of Defense | 1,213 | 1,225 | 1,190 | 1,184 | 1,313 | 1,195 | 1,069 | 1,031 |
| Dept. of HHS, total | 2,081 | 2,017 | 2,164 | 2,135 | 2,179 | 2,056 | 2,050 | 1,928 |
| NIH | 1,937 | 1,849 | 2,036 | 2,026 | 2,050 | 1,889 | 1,784 | 1,624 |
| Other HHS | 144 | 168 | 128 | 109 | 129 | 167 | 266 | 304 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 523 | 569 |
| NSF | 3,561 | 3,561 | 3,594 | 3,607 | 3,689 | 3,574 | 3,371 | 3,362 |
| USDA | 54 | 60 | 66 | 60 | 42 | 38 | 43 | 30 |
| All other Federal | 3,307 | 3,887 | 3,915 | 4,032 | 3,717 | 3,407 | 2,751 | 2,430 |
| Institutional support | 14,931 | 14,683 | 15,015 | 14,831 | 14,448 | 14,440 | 13,970 | 13,809 |
| Other non-Federal support, total | 1,957 | 2,211 | 2,330 | 2,227 | 2,304 | 2,074 | 2,072 | 1,860 |
| All other U.S. | 1,700 | 1,912 | 2,025 | 1,949 | 1,998 | 1,787 | 1,793 | 1,646 |
| Foreign | 257 | 299 | 305 | 278 | 306 | 287 | 279 | 214 |
| Self-support | 1,751 | 1,809 | 1,800 | 1,870 | 1,669 | 1,449 | 1,468 | 1,249 |

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Earth, atmospheric, & ocean sciences: | | | | | | | | |
| Total, all sources | 9,858 | 9,923 | 10,485 | 10,799 | 10,884 | 10,728 | 10,255 | 9,934 |
| Federal, total | 2,971 | 3,092 | 3,403 | 3,623 | 3,577 | 3,441 | 3,253 | 3,082 |
| Dept. of Defense | 451 | 449 | 472 | 513 | 493 | 408 | 389 | 364 |
| Dept. of HHS, total | 34 | 56 | 49 | 48 | 37 | 33 | 49 | 40 |
| NIH | 21 | 23 | 43 | 41 | 36 | 30 | 30 | 27 |
| Other HHS | 13 | 33 | 6 | 7 | 1 | 3 | 19 | 13 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 326 | 350 |
| NSF | 1,201 | 1,217 | 1,312 | 1,352 | 1,393 | 1,375 | 1,238 | 1,198 |
| USDA | 57 | 69 | 85 | 64 | 61 | 64 | 74 | 51 |
| All other Federal | 1,228 | 1,301 | 1,485 | 1,646 | 1,593 | 1,561 | 1,177 | 1,079 |
| Institutional support | 4,073 | 4,105 | 4,080 | 4,114 | 4,126 | 4,200 | 4,034 | 4,125 |
| Other non-Federal support, total | 937 | 960 | 989 | 921 | 1,014 | 958 | 885 | 873 |
| All other U.S. | 667 | 673 | 746 | 729 | 782 | 724 | 669 | 689 |
| Foreign | 270 | 287 | 243 | 192 | 232 | 234 | 216 | 184 |
| Self-support | 1,877 | 1,766 | 2,013 | 2,141 | 2,167 | 2,129 | 2,083 | 1,854 |
| Mathematical sciences: | | | | | | | | |
| Total, all sources | 13,269 | 13,627 | 14,016 | 13,844 | 13,499 | 12,743 | 12,324 | 11,538 |
| Federal, total | 1,306 | 1,471 | 1,460 | 1,436 | 1,372 | 1,264 | 1,228 | 1,158 |
| Dept. of Defense | 366 | 376 | 385 | 399 | 371 | 321 | 351 | 361 |
| Dept. of HHS, total | 49 | 69 | 118 | 80 | 76 | 87 | 82 | 96 |
| NIH | 39 | 64 | 111 | 74 | 68 | 63 | 61 | 66 |
| Other HHS | 10 | 5 | 7 | 6 | 8 | 24 | 21 | 30 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 21 | 19 |
| NSF | 490 | 450 | 455 | 462 | 509 | 465 | 435 | 388 |
| USDA | 23 | 21 | 24 | 27 | 16 | 13 | 9 | 16 |
| All other Federal | 378 | 555 | 478 | 468 | 400 | 378 | 330 | 278 |
| Institutional support | 9,159 | 9,185 | 9,199 | 9,035 | 9,071 | 8,766 | 8,506 | 8,164 |
| Other non-Federal support, total | 552 | 579 | 617 | 505 | 537 | 477 | 545 | 473 |
| All other U.S. | 311 | 310 | 348 | 284 | 319 | 290 | 338 | 296 |
| Foreign | 241 | 269 | 269 | 221 | 218 | 187 | 207 | 177 |
| Self-support | 2,252 | 2,392 | 2,740 | 2,868 | 2,519 | 2,236 | 2,045 | 1,743 |
| Computer sciences: | | | | | | | | |
| Total, all sources | 14,898 | 14,870 | 15,769 | 15,827 | 15,389 | 15,216 | 15,633 | 16,488 |
| Federal, total | 2,376 | 2,501 | 2,595 | 2,883 | 3,007 | 3,109 | 3,074 | 3,114 |
| Dept. of Defense | 1,127 | 1,125 | 1,171 | 1,314 | 1,311 | 1,390 | 1,335 | 1,411 |
| Dept. of HHS, total | 68 | 71 | 100 | 103 | 97 | 110 | 113 | 106 |
| NIH | 61 | 65 | 97 | 95 | 89 | 92 | 80 | 78 |
| Other HHS | 7 | 6 | 3 | 8 | 8 | 18 | 33 | 28 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 119 | 114 |
| NSF | 818 | 896 | 958 | 1,003 | 1,040 | 1,050 | 1,044 | 1,076 |
| USDA | 14 | 8 | 6 | 7 | 9 | 13 | 13 | 12 |
| All other Federal | 349 | 401 | 360 | 456 | 550 | 546 | 450 | 395 |
| Institutional support | 5,278 | 5,110 | 5,262 | 5,182 | 5,111 | 5,172 | 5,320 | 5,544 |
| Other non-Federal support, total | 1,229 | 1,276 | 1,306 | 1,342 | 1,342 | 1,249 | 1,093 | 1,130 |
| All other U.S. | 915 | 957 | 990 | 1,090 | 1,066 | 1,024 | 852 | 974 |
| Foreign | 314 | 319 | 316 | 252 | 276 | 225 | 241 | 156 |
| Self-support | 6,015 | 5,983 | 6,606 | 6,420 | 5,929 | 5,686 | 6,146 | 6,700 |
| Agricultural sciences: | | | | | | | | |
| Total, all sources | 8,748 | 8,873 | 9,109 | 9,102 | 9,132 | 9,156 | 8,882 | 8,677 |
| Federal, total | 1,742 | 1,830 | 1,942 | 1,946 | 1,906 | 2,011 | 1,927 | 1,741 |
| Dept. of Defense | 18 | 26 | 18 | 37 | 35 | 32 | 38 | 39 |
| Dept. of HHS, total | 45 | 45 | 41 | 34 | 48 | 23 | 31 | 29 |
| NIH | 40 | 37 | 38 | 32 | 45 | 17 | 17 | 21 |
| Other HHS | 5 | 8 | 3 | 2 | 3 | 6 | 14 | 8 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 22 | 20 |
| NSF | 65 | 61 | 76 | 76 | 87 | 88 | 95 | 100 |
| USDA | 939 | 1,098 | 1,093 | 1,140 | 1,108 | 1,172 | 1,040 | 937 |
| All other Federal | 675 | 600 | 714 | 659 | 628 | 696 | 701 | 616 |
| Institutional support | 3,345 | 3,442 | 3,516 | 3,541 | 3,722 | 3,758 | 3,582 | 3,553 |
| Other non-Federal support, total | 1,763 | 1,712 | 1,683 | 1,666 | 1,653 | 1,461 | 1,432 | 1,544 |
| All other U.S. | 1,098 | 1,056 | 1,097 | 1,176 | 1,137 | 1,062 | 1,082 | 1,208 |
| Foreign | 665 | 656 | 586 | 490 | 516 | 399 | 350 | 336 |
| Self-support | 1,898 | 1,889 | 1,968 | 1,949 | 1,851 | 1,926 | 1,941 | 1,839 |

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Biological sciences: | | | | | | | | |
| Total, all sources | 39,595 | 41,282 | 42,832 | 44,659 | 46,210 | 46,435 | 45,837 | 45,064 |
| Federal, total | 13,519 | 14,372 | 15,002 | 16,048 | 16,583 | 16,492 | 16,435 | 16,111 |
| Dept. of Defense | 222 | 220 | 229 | 269 | 346 | 354 | 358 | 358 |
| Dept. of HHS, total | 9,908 | 10,616 | 10,989 | 11,554 | 11,927 | 12,004 | 11,819 | 11,723 |
| NIH | 9,542 | 10,164 | 10,575 | 11,236 | 11,412 | 11,332 | 11,230 | 11,141 |
| Other HHS | 366 | 452 | 414 | 318 | 515 | 672 | 589 | 582 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 85 | 108 |
| NSF | 1,201 | 1,269 | 1,333 | 1,362 | 1,369 | 1,399 | 1,484 | 1,518 |
| USDA | 960 | 1,060 | 1,078 | 1,215 | 1,280 | 1,078 | 1,065 | 921 |
| All other Federal | 1,228 | 1,207 | 1,373 | 1,648 | 1,661 | 1,657 | 1,624 | 1,483 |
| Institutional support | 18,217 | 18,584 | 19,046 | 19,265 | 19,895 | 19,987 | 19,553 | 19,432 |
| Other non-Federal support, total | 3,515 | 3,703 | 3,758 | 3,836 | 4,116 | 3,873 | 3,713 | 3,528 |
| All other U.S. | 2,790 | 2,989 | 3,082 | 3,255 | 3,483 | 3,267 | 3,156 | 3,010 |
| Foreign | 725 | 714 | 676 | 581 | 633 | 606 | 557 | 518 |
| Self-support | 4,344 | 4,623 | 5,026 | 5,510 | 5,616 | 6,083 | 6,136 | 5,993 |
| Psychology: | | | | | | | | |
| Total, all sources | 25,592 | 26,567 | 27,783 | 28,278 | 28,560 | 28,478 | 28,705 | 28,764 |
| Federal, total | 2,252 | 2,379 | 2,456 | 2,565 | 2,528 | 2,466 | 2,662 | 2,627 |
| Dept. of Defense | 137 | 146 | 135 | 163 | 172 | 174 | 136 | 110 |
| Dept. of HHS, total | 1,263 | 1,332 | 1,378 | 1,412 | 1,347 | 1,320 | 1,512 | 1,429 |
| NIH | 787 | 891 | 942 | 1,153 | 1,080 | 1,089 | 1,213 | 1,179 |
| Other HHS | 476 | 441 | 436 | 259 | 267 | 231 | 299 | 250 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 7 | 12 |
| NSF | 261 | 267 | 281 | 308 | 287 | 286 | 287 | 277 |
| USDA | 37 | 24 | 19 | 15 | 27 | 16 | 5 | 7 |
| All other Federal | 554 | 610 | 643 | 667 | 695 | 670 | 715 | 792 |
| Institutional support | 11,068 | 11,158 | 11,366 | 12,006 | 11,827 | 11,762 | 11,838 | 12,168 |
| Other non-Federal support, total | 1,079 | 1,026 | 1,083 | 1,031 | 1,142 | 1,072 | 955 | 1,185 |
| All other U.S. | 1,021 | 972 | 1,026 | 984 | 1,069 | 1,029 | 916 | 1,128 |
| Foreign | 58 | 54 | 57 | 47 | 73 | 43 | 39 | 57 |
| Self-support | 11,193 | 12,004 | 12,878 | 12,676 | 13,063 | 13,178 | 13,250 | 12,784 |
| Social sciences: | | | | | | | | |
| Total, all sources | 45,679 | 47,493 | 50,853 | 52,173 | 52,790 | 52,596 | 53,212 | 51,594 |
| Federal, total | 2,800 | 2,977 | 3,185 | 3,282 | 3,353 | 3,344 | 3,119 | 3,096 |
| Dept. of Defense | 209 | 241 | 243 | 264 | 262 | 227 | 181 | 176 |
| Dept. of HHS, total | 314 | 368 | 420 | 415 | 422 | 473 | 326 | 351 |
| NIH | 210 | 267 | 296 | 302 | 285 | 320 | 265 | 284 |
| Other HHS | 104 | 101 | 124 | 113 | 137 | 153 | 61 | 67 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 50 | 65 |
| NSF | 467 | 554 | 643 | 645 | 675 | 669 | 743 | 687 |
| USDA | 315 | 368 | 382 | 382 | 421 | 418 | 363 | 373 |
| All other Federal | 1,495 | 1,446 | 1,497 | 1,576 | 1,573 | 1,557 | 1,456 | 1,444 |
| Institutional support | 22,819 | 23,189 | 23,757 | 23,993 | 23,964 | 24,401 | 24,721 | 24,351 |
| Other non-Federal support, total | 3,104 | 3,204 | 3,515 | 3,441 | 3,598 | 3,348 | 3,405 | 3,227 |
| All other U.S. | 1,641 | 1,766 | 2,037 | 2,128 | 2,236 | 1,996 | 2,052 | 1,967 |
| Foreign | 1,463 | 1,438 | 1,478 | 1,313 | 1,362 | 1,352 | 1,353 | 1,260 |
| Self-support | 16,956 | 18,123 | 20,396 | 21,457 | 21,875 | 21,503 | 21,967 | 20,920 |
| Engineering, total: | | | | | | | | |
| Total, all sources | 64,036 | 69,066 | 72,221 | 71,668 | 69,499 | 65,828 | 64,067 | 63,834 |
| Federal, total | 14,524 | 15,794 | 16,354 | 16,668 | 16,522 | 16,142 | 15,589 | 15,623 |
| Dept. of Defense | 4,682 | 4,832 | 4,910 | 5,077 | 4,648 | 4,733 | 4,460 | 4,718 |
| Dept. of HHS, total | 760 | 807 | 895 | 920 | 902 | 918 | 835 | 908 |
| NIH | 661 | 721 | 792 | 790 | 778 | 768 | 731 | 761 |
| Other HHS | 99 | 86 | 103 | 130 | 124 | 150 | 104 | 147 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 1,059 | 1,223 |
| NSF | 3,868 | 4,267 | 4,571 | 4,510 | 4,607 | 4,541 | 4,561 | 4,563 |
| USDA | 230 | 274 | 346 | 292 | 333 | 340 | 290 | 213 |
| All other Federal | 4,984 | 5,614 | 5,632 | 5,869 | 6,032 | 5,610 | 4,384 | 3,998 |
| Institutional support | 22,868 | 24,136 | 24,369 | 24,451 | 24,095 | 23,370 | 22,981 | 23,332 |
| Other non-Federal support, total | 10,295 | 10,514 | 10,436 | 9,646 | 9,284 | 9,023 | 8,804 | 8,962 |
| All other U.S. | 8,316 | 8,444 | 8,442 | 8,027 | 7,690 | 7,393 | 7,278 | 7,546 |
| Foreign | 1,979 | 2,070 | 1,994 | 1,619 | 1,594 | 1,630 | 1,526 | 1,416 |
| Self-support | 16,349 | 18,622 | 21,062 | 20,903 | 19,598 | 17,293 | 16,693 | 15,917 |

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Chemical engineering: | | | | | | | | |
| Total, all sources | 5,420 | 5,753 | 5,900 | 6,002 | 6,054 | 5,905 | 5,856 | 5,713 |
| Federal, total | 1,528 | 1,592 | 1,643 | 1,735 | 1,706 | 1,740 | 1,769 | 1,622 |
| Dept. of Defense | 98 | 134 | 123 | 138 | 128 | 164 | 166 | 158 |
| Dept. of HHS, total | 121 | 132 | 166 | 141 | 173 | 163 | 162 | 137 |
| NIH | 119 | 128 | 146 | 119 | 143 | 136 | 148 | 121 |
| Other HHS | 2 | 4 | 20 | 22 | 30 | 27 | 14 | 16 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 89 | 77 |
| NSF | 678 | 663 | 696 | 726 | 747 | 759 | 776 | 705 |
| USDA | 27 | 16 | 38 | 52 | 54 | 66 | 34 | 25 |
| All other Federal | 604 | 647 | 620 | 678 | 604 | 588 | 542 | 520 |
| Institutional support | 2,094 | 2,262 | 2,286 | 2,328 | 2,394 | 2,257 | 2,141 | 2,202 |
| Other non-Federal support, total | 1,236 | 1,222 | 1,164 | 1,057 | 1,143 | 1,071 | 1,105 | 1,128 |
| All other U.S. | 1,138 | 1,106 | 1,068 | 958 | 1,039 | 936 | 949 | 948 |
| Foreign | 98 | 116 | 96 | 99 | 104 | 135 | 156 | 180 |
| Self-support | 562 | 677 | 807 | 882 | 811 | 837 | 841 | 761 |
| Civil engineering: | | | | | | | | |
| Total, all sources | 9,877 | 10,992 | 12,016 | 11,982 | 12,175 | 11,781 | 11,381 | 10,891 |
| Federal, total | 1,452 | 1,732 | 1,996 | 1,943 | 2,019 | 1,917 | 1,843 | 1,769 |
| Dept. of Defense | 235 | 273 | 349 | 322 | 315 | 271 | 196 | 223 |
| Dept. of HHS, total | 15 | 32 | 41 | 38 | 45 | 41 | 39 | 47 |
| NIH | 11 | 28 | 36 | 30 | 37 | 31 | 33 | 41 |
| Other HHS | 4 | 4 | 5 | 8 | 8 | 10 | 6 | 6 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 117 | 121 |
| NSF | 424 | 496 | 531 | 513 | 553 | 528 | 534 | 521 |
| USDA | 35 | 51 | 68 | 51 | 53 | 53 | 70 | 40 |
| All other Federal | 743 | 880 | 1,007 | 1,019 | 1,053 | 1,024 | 887 | 817 |
| Institutional support | 3,845 | 4,131 | 4,329 | 4,497 | 4,671 | 4,780 | 4,674 | 4,645 |
| Other non-Federal support, total | 1,244 | 1,323 | 1,436 | 1,244 | 1,219 | 1,148 | 1,144 | 1,064 |
| All other U.S. | 823 | 912 | 1,019 | 971 | 938 | 869 | 901 | 844 |
| Foreign | 421 | 411 | 417 | 273 | 281 | 279 | 243 | 220 |
| Self-support | 3,336 | 3,806 | 4,255 | 4,298 | 4,266 | 3,936 | 3,720 | 3,413 |
| Electrical engineering: | | | | | | | | |
| Total, all sources | 17,957 | 19,199 | 20,232 | 19,669 | 18,719 | 17,569 | 17,389 | 18,301 |
| Federal, total | 3,529 | 3,791 | 3,986 | 4,033 | 3,974 | 4,004 | 3,927 | 4,338 |
| Dept. of Defense | 1,636 | 1,623 | 1,680 | 1,734 | 1,649 | 1,699 | 1,647 | 1,961 |
| Dept. of HHS, total | 77 | 85 | 90 | 103 | 100 | 113 | 93 | 113 |
| NIH | 55 | 76 | 81 | 86 | 83 | 84 | 71 | 68 |
| Other HHS | 22 | 9 | 9 | 17 | 17 | 29 | 22 | 45 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 162 | 214 |
| NSF | 1,131 | 1,253 | 1,360 | 1,260 | 1,266 | 1,298 | 1,298 | 1,324 |
| USDA | 16 | 18 | 24 | 9 | 24 | 33 | 12 | 14 |
| All other Federal | 669 | 812 | 832 | 927 | 935 | 861 | 715 | 712 |
| Institutional support | 6,196 | 6,459 | 6,659 | 6,539 | 6,233 | 6,085 | 6,269 | 6,541 |
| Other non-Federal support, total | 2,947 | 2,980 | 2,926 | 2,746 | 2,578 | 2,564 | 2,630 | 2,781 |
| All other U.S. | 2,423 | 2,450 | 2,423 | 2,311 | 2,178 | 2,146 | 2,251 | 2,445 |
| Foreign | 524 | 530 | 503 | 435 | 400 | 418 | 379 | 336 |
| Self-support | 5,285 | 5,969 | 6,661 | 6,351 | 5,934 | 4,916 | 4,563 | 4,641 |
| Industrial engineering: | | | | | | | | |
| Total, all sources | 4,488 | 5,397 | 5,843 | 5,682 | 5,685 | 5,104 | 4,960 | 4,910 |
| Federal, total | 593 | 680 | 634 | 625 | 607 | 626 | 625 | 588 |
| Dept. of Defense | 296 | 279 | 264 | 244 | 168 | 167 | 208 | 193 |
| Dept. of HHS, total | 60 | 52 | 53 | 78 | 50 | 54 | 49 | 36 |
| NIH | 27 | 16 | 22 | 36 | 28 | 27 | 27 | 30 |
| Other HHS | 33 | 36 | 31 | 42 | 22 | 27 | 22 | 6 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 24 | 21 |
| NSF | 128 | 187 | 165 | 171 | 203 | 172 | 169 | 143 |
| USDA | 1 | 5 | 5 | 3 | 1 | 0 | 1 | 1 |
| All other Federal | 108 | 157 | 147 | 129 | 185 | 233 | 174 | 194 |
| Institutional support | 1,655 | 1,826 | 1,826 | 1,915 | 1,851 | 1,802 | 1,753 | 1,672 |
| Other non-Federal support, total | 556 | 490 | 564 | 487 | 548 | 491 | 454 | 501 |
| All other U.S. | 405 | 361 | 427 | 398 | 455 | 413 | 348 | 404 |
| Foreign | 151 | 129 | 137 | 89 | 93 | 78 | 106 | 97 |
| Self-support | 1,684 | 2,401 | 2,819 | 2,655 | 2,679 | 2,185 | 2,128 | 2,149 |

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

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| Field and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Mechanical engineering: | | | | | | | | |
| Total, all sources | 10,589 | 11,415 | 12,079 | 12,128 | 11,642 | 10,933 | 10,437 | 10,174 |
| Federal, total | 2,494 | 2,697 | 2,753 | 2,952 | 2,885 | 2,726 | 2,546 | 2,559 |
| Dept. of Defense | 735 | 724 | 715 | 777 | 763 | 801 | 709 | 725 |
| Dept. of HHS, total | 69 | 71 | 87 | 86 | 79 | 93 | 76 | 109 |
| NIH | 68 | 58 | 77 | 70 | 70 | 82 | 63 | 70 |
| Other HHS | 1 | 13 | 10 | 16 | 9 | 11 | 13 | 39 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 201 | 282 |
| NSF | 637 | 732 | 786 | 805 | 779 | 734 | 764 | 832 |
| USDA | 26 | 29 | 26 | 9 | 10 | 4 | 13 | 12 |
| All other Federal | 1,027 | 1,141 | 1,139 | 1,275 | 1,254 | 1,094 | 783 | 599 |
| Institutional support | 3,971 | 4,219 | 4,317 | 4,150 | 4,024 | 3,832 | 3,869 | 3,845 |
| Other non-Federal support, total | 1,578 | 1,666 | 1,599 | 1,550 | 1,552 | 1,588 | 1,441 | 1,438 |
| All other U.S. | 1,367 | 1,395 | 1,382 | 1,381 | 1,313 | 1,335 | 1,237 | 1,270 |
| Foreign | 211 | 271 | 217 | 169 | 239 | 253 | 204 | 168 |
| Self-support | 2,546 | 2,833 | 3,410 | 3,476 | 3,181 | 2,787 | 2,581 | 2,332 |
| Other engineering: | | | | | | | | |
| Total, all sources | 15,705 | 16,310 | 16,151 | 16,205 | 15,224 | 14,536 | 14,044 | 13,845 |
| Federal, total | 4,928 | 5,302 | 5,342 | 5,380 | 5,331 | 5,129 | 4,879 | 4,747 |
| Dept. of Defense | 1,682 | 1,799 | 1,779 | 1,862 | 1,625 | 1,631 | 1,534 | 1,458 |
| Dept. of HHS, total | 418 | 435 | 458 | 474 | 455 | 454 | 416 | 466 |
| NIH | 381 | 415 | 430 | 449 | 417 | 408 | 389 | 431 |
| Other HHS | 37 | 20 | 28 | 25 | 38 | 46 | 27 | 35 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 466 | 508 |
| NSF | 870 | 936 | 1,033 | 1,035 | 1,059 | 1,050 | 1,020 | 1,038 |
| USDA | 125 | 155 | 185 | 168 | 191 | 184 | 160 | 121 |
| All other Federal | 1,833 | 1,977 | 1,887 | 1,841 | 2,001 | 1,810 | 1,283 | 1,156 |
| Institutional support | 5,107 | 5,239 | 4,952 | 5,022 | 4,922 | 4,614 | 4,275 | 4,427 |
| Other non-Federal support, total | 2,734 | 2,833 | 2,747 | 2,562 | 2,244 | 2,161 | 2,030 | 2,050 |
| All other U.S. | 2,160 | 2,220 | 2,123 | 2,008 | 1,767 | 1,694 | 1,592 | 1,635 |
| Foreign | 574 | 613 | 624 | 554 | 477 | 467 | 438 | 415 |
| Self-support | 2,936 | 2,936 | 3,110 | 3,241 | 2,727 | 2,632 | 2,860 | 2,621 |
| Total, health fields: | | | | | | | | |
| Total, all sources | 24,903 | 26,655 | 28,630 | 31,397 | 34,005 | 36,246 | 38,002 | 39,412 |
| Federal, total | 6,487 | 6,542 | 6,953 | 6,911 | 7,215 | 7,356 | 6,935 | 7,117 |
| Dept. of Defense | 370 | 403 | 381 | 421 | 364 | 326 | 308 | 308 |
| Dept. of HHS, total | 4,736 | 4,761 | 4,971 | 4,962 | 5,163 | 5,275 | 5,112 | 5,210 |
| NIH | 1,621 | 1,841 | 2,050 | 2,220 | 2,282 | 2,378 | 2,426 | 2,657 |
| Other HHS | 3,115 | 2,920 | 2,921 | 2,742 | 2,881 | 2,897 | 2,686 | 2,553 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 14 | 21 |
| NSF | 49 | 56 | 70 | 85 | 108 | 91 | 81 | 95 |
| USDA | 58 | 60 | 69 | 69 | 67 | 48 | 44 | 34 |
| All other Federal | 1,274 | 1,262 | 1,462 | 1,374 | 1,513 | 1,616 | 1,376 | 1,449 |
| Institutional support | 6,712 | 6,937 | 7,064 | 7,482 | 7,838 | 8,297 | 8,361 | 8,794 |
| Other non-Federal support, total | 1,347 | 1,505 | 1,673 | 1,708 | 1,817 | 1,929 | 1,955 | 1,916 |
| All other U.S. | 894 | 1,047 | 1,217 | 1,270 | 1,363 | 1,410 | 1,528 | 1,429 |
| Foreign | 453 | 458 | 456 | 438 | 454 | 519 | 427 | 487 |
| Self-support | 10,357 | 11,671 | 12,940 | 15,296 | 17,135 | 18,664 | 20,751 | 21,585 |

¹ Data for NASA were not collected separately prior to 1996.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and mechanism of support: 1990-97

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| Field and mechanism of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields: | | | | | | | | |
| Total, all types | 275,433 | 287,809 | 301,772 | 307,693 | 309,329 | 305,659 | 304,234 | 301,573 |
| Fellowships | 24,768 | 26,245 | 28,126 | 28,623 | 28,412 | 28,371 | 28,296 | 28,298 |
| Traineeships | 14,831 | 14,842 | 14,836 | 14,879 | 14,986 | 15,289 | 14,813 | 13,715 |
| Research assistantships | 79,068 | 83,338 | 86,164 | 88,115 | 89,665 | 87,647 | 85,408 | 85,543 |
| Teaching assistantships | 62,771 | 62,948 | 63,534 | 65,207 | 64,724 | 63,907 | 63,716 | 63,059 |
| Other types of support | 93,995 | 100,436 | 109,112 | 110,869 | 111,542 | 110,445 | 112,001 | 110,958 |
| Total, science and engineering: | | | | | | | | |
| Total, all types | 250,530 | 261,154 | 273,142 | 276,296 | 275,324 | 269,413 | 266,232 | 262,161 |
| Fellowships | 23,080 | 24,575 | 26,293 | 26,679 | 26,337 | 26,234 | 25,899 | 25,945 |
| Traineeships | 9,958 | 10,287 | 9,852 | 10,082 | 10,137 | 10,429 | 10,197 | 9,472 |
| Research assistantships | 75,841 | 79,564 | 82,399 | 84,376 | 85,548 | 83,414 | 81,311 | 81,012 |
| Teaching assistantships | 60,519 | 60,583 | 61,154 | 62,842 | 62,068 | 61,186 | 60,836 | 60,096 |
| Other types of support | 81,132 | 86,145 | 93,444 | 92,317 | 91,234 | 88,150 | 87,989 | 85,636 |
| Sciences, total: | | | | | | | | |
| Total, all types | 186,494 | 192,088 | 200,921 | 204,628 | 205,825 | 203,585 | 202,165 | 198,327 |
| Fellowships | 17,964 | 18,887 | 20,259 | 20,592 | 20,420 | 20,336 | 20,302 | 20,277 |
| Traineeships | 8,947 | 9,197 | 8,865 | 9,054 | 9,224 | 9,430 | 9,335 | 8,612 |
| Research assistantships | 50,712 | 53,040 | 55,108 | 56,686 | 57,815 | 56,636 | 55,087 | 54,417 |
| Teaching assistantships | 49,825 | 49,631 | 50,563 | 51,936 | 51,567 | 51,236 | 51,021 | 50,142 |
| Other types of support | 59,046 | 61,333 | 66,126 | 66,360 | 66,799 | 65,947 | 66,420 | 64,879 |
| Physical sciences: | | | | | | | | |
| Total, all types | 28,855 | 29,453 | 30,074 | 29,946 | 29,361 | 28,233 | 27,317 | 26,268 |
| Fellowships | 2,232 | 2,625 | 2,804 | 2,678 | 2,390 | 2,304 | 2,156 | 2,138 |
| Traineeships | 658 | 784 | 694 | 742 | 664 | 672 | 630 | 517 |
| Research assistantships | 12,019 | 12,094 | 12,328 | 12,160 | 12,224 | 11,714 | 11,400 | 11,186 |
| Teaching assistantships | 11,604 | 11,445 | 11,642 | 11,931 | 11,663 | 11,436 | 10,999 | 10,617 |
| Other types of support | 2,342 | 2,505 | 2,606 | 2,435 | 2,420 | 2,107 | 2,132 | 1,810 |
| Earth, atmospheric, & ocean sciences: | | | | | | | | |
| Total, all types | 9,858 | 9,923 | 10,485 | 10,799 | 10,884 | 10,728 | 10,255 | 9,934 |
| Fellowships | 789 | 885 | 888 | 898 | 864 | 883 | 866 | 815 |
| Traineeships | 84 | 93 | 120 | 153 | 138 | 131 | 131 | 89 |
| Research assistantships | 4,097 | 4,266 | 4,488 | 4,615 | 4,712 | 4,526 | 4,201 | 4,144 |
| Teaching assistantships | 2,295 | 2,257 | 2,337 | 2,405 | 2,391 | 2,413 | 2,394 | 2,505 |
| Other types of support | 2,593 | 2,422 | 2,652 | 2,728 | 2,779 | 2,775 | 2,663 | 2,381 |
| Mathematical sciences: | | | | | | | | |
| Total, all types | 13,269 | 13,627 | 14,016 | 13,844 | 13,499 | 12,743 | 12,324 | 11,538 |
| Fellowships | 1,123 | 1,350 | 1,394 | 1,350 | 1,203 | 1,291 | 1,274 | 1,186 |
| Traineeships | 181 | 207 | 220 | 258 | 244 | 216 | 177 | 176 |
| Research assistantships | 1,267 | 1,293 | 1,330 | 1,349 | 1,460 | 1,367 | 1,231 | 1,329 |
| Teaching assistantships | 7,611 | 7,507 | 7,463 | 7,308 | 7,318 | 7,004 | 6,881 | 6,483 |
| Other types of support | 3,087 | 3,270 | 3,609 | 3,579 | 3,274 | 2,865 | 2,761 | 2,364 |
| Computer sciences: | | | | | | | | |
| Total, all types | 14,898 | 14,870 | 15,769 | 15,827 | 15,389 | 15,216 | 15,633 | 16,488 |
| Fellowships | 905 | 868 | 838 | 799 | 888 | 893 | 888 | 894 |
| Traineeships | 143 | 130 | 142 | 210 | 239 | 213 | 187 | 196 |
| Research assistantships | 3,193 | 3,430 | 3,556 | 3,645 | 3,737 | 3,778 | 3,841 | 3,899 |
| Teaching assistantships | 3,510 | 3,364 | 3,409 | 3,463 | 3,273 | 3,274 | 3,277 | 3,526 |
| Other types of support | 7,147 | 7,078 | 7,824 | 7,710 | 7,252 | 7,058 | 7,440 | 7,973 |
| Agricultural sciences: | | | | | | | | |
| Total, all types | 8,748 | 8,873 | 9,109 | 9,102 | 9,132 | 9,156 | 8,882 | 8,677 |
| Fellowships | 507 | 456 | 472 | 522 | 513 | 449 | 424 | 427 |
| Traineeships | 111 | 105 | 110 | 153 | 116 | 124 | 121 | 113 |
| Research assistantships | 4,676 | 4,939 | 5,126 | 5,191 | 5,342 | 5,297 | 5,105 | 5,021 |
| Teaching assistantships | 743 | 749 | 774 | 867 | 872 | 924 | 928 | 924 |
| Other types of support | 2,711 | 2,624 | 2,627 | 2,369 | 2,289 | 2,362 | 2,304 | 2,192 |
| Biological sciences: | | | | | | | | |
| Total, all types | 39,595 | 41,282 | 42,832 | 44,659 | 46,210 | 46,435 | 45,837 | 45,064 |
| Fellowships | 4,602 | 4,608 | 4,983 | 5,165 | 5,459 | 5,299 | 5,194 | 5,406 |
| Traineeships | 4,852 | 5,078 | 4,806 | 4,878 | 5,202 | 5,283 | 5,336 | 5,009 |
| Research assistantships | 15,582 | 16,641 | 17,398 | 18,584 | 19,144 | 18,963 | 18,376 | 18,265 |
| Teaching assistantships | 8,300 | 8,339 | 8,492 | 8,696 | 8,884 | 8,813 | 8,864 | 8,554 |
| Other types of support | 6,259 | 6,616 | 7,153 | 7,336 | 7,521 | 8,077 | 8,067 | 7,830 |
| Psychology: | | | | | | | | |
| Total, all types | 25,592 | 26,567 | 27,783 | 28,278 | 28,560 | 28,478 | 28,705 | 28,764 |
| Fellowships | 1,588 | 1,644 | 1,807 | 1,883 | 1,807 | 1,790 | 1,905 | 2,024 |
| Traineeships | 1,078 | 1,125 | 1,112 | 1,064 | 992 | 1,060 | 1,114 | 990 |
| Research assistantships | 3,702 | 3,863 | 3,881 | 4,140 | 4,186 | 4,161 | 4,208 | 4,215 |
| Teaching assistantships | 5,360 | 5,327 | 5,435 | 5,911 | 5,696 | 5,766 | 5,827 | 5,804 |
| Other types of support | 13,864 | 14,608 | 15,548 | 15,280 | 15,879 | 15,701 | 15,651 | 15,731 |

See explanatory information, if any, and SOURCE at end of table.

Table 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and mechanism of support: 1990-97

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| Field and mechanism of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Social sciences: | | | | | | | | |
| Total, all types | 45,679 | 47,493 | 50,853 | 52,173 | 52,790 | 52,596 | 53,212 | 51,594 |
| Fellowships | 6,218 | 6,451 | 7,073 | 7,297 | 7,296 | 7,427 | 7,595 | 7,387 |
| Traineeships | 1,840 | 1,675 | 1,661 | 1,596 | 1,629 | 1,731 | 1,639 | 1,522 |
| Research assistantships | 6,176 | 6,514 | 7,001 | 7,002 | 7,010 | 6,830 | 6,725 | 6,358 |
| Teaching assistantships | 10,402 | 10,643 | 11,011 | 11,355 | 11,470 | 11,606 | 11,851 | 11,729 |
| Other types of support | 21,043 | 22,210 | 24,107 | 24,923 | 25,385 | 25,002 | 25,402 | 24,598 |
| Engineering, total: | | | | | | | | |
| Total, all types | 64,036 | 69,066 | 72,221 | 71,668 | 69,499 | 65,828 | 64,067 | 63,834 |
| Fellowships | 5,116 | 5,688 | 6,034 | 6,087 | 5,917 | 5,898 | 5,597 | 5,668 |
| Traineeships | 1,011 | 1,090 | 987 | 1,028 | 913 | 999 | 862 | 860 |
| Research assistantships | 25,129 | 26,524 | 27,291 | 27,690 | 27,733 | 26,778 | 26,224 | 26,595 |
| Teaching assistantships | 10,694 | 10,952 | 10,591 | 10,906 | 10,501 | 9,950 | 9,815 | 9,954 |
| Other types of support | 22,086 | 24,812 | 27,318 | 25,957 | 24,435 | 22,203 | 21,569 | 20,757 |
| Chemical engineering: | | | | | | | | |
| Total, all types | 5,420 | 5,753 | 5,900 | 6,002 | 6,054 | 5,905 | 5,856 | 5,713 |
| Fellowships | 738 | 684 | 733 | 718 | 701 | 776 | 752 | 812 |
| Traineeships | 148 | 173 | 153 | 123 | 98 | 105 | 93 | 94 |
| Research assistantships | 2,838 | 2,978 | 3,003 | 3,104 | 3,258 | 3,091 | 3,031 | 2,948 |
| Teaching assistantships | 932 | 993 | 1,002 | 1,014 | 935 | 906 | 916 | 915 |
| Other types of support | 764 | 925 | 1,009 | 1,043 | 1,062 | 1,027 | 1,064 | 944 |
| Civil engineering: | | | | | | | | |
| Total, all types | 9,877 | 10,992 | 12,016 | 11,982 | 12,175 | 11,781 | 11,381 | 10,891 |
| Fellowships | 606 | 674 | 795 | 883 | 860 | 884 | 862 | 832 |
| Traineeships | 211 | 209 | 213 | 205 | 187 | 187 | 174 | 176 |
| Research assistantships | 3,087 | 3,538 | 3,914 | 4,008 | 4,187 | 4,180 | 4,086 | 3,941 |
| Teaching assistantships | 1,610 | 1,617 | 1,599 | 1,781 | 1,859 | 1,806 | 1,758 | 1,741 |
| Other types of support | 4,363 | 4,954 | 5,495 | 5,105 | 5,082 | 4,724 | 4,501 | 4,201 |
| Electrical engineering: | | | | | | | | |
| Total, all types | 17,957 | 19,199 | 20,232 | 19,669 | 18,719 | 17,569 | 17,389 | 18,301 |
| Fellowships | 1,241 | 1,392 | 1,466 | 1,425 | 1,456 | 1,413 | 1,376 | 1,369 |
| Traineeships | 157 | 182 | 159 | 169 | 145 | 155 | 152 | 122 |
| Research assistantships | 6,189 | 6,443 | 6,760 | 6,860 | 6,729 | 6,627 | 6,839 | 7,397 |
| Teaching assistantships | 3,329 | 3,363 | 3,323 | 3,306 | 3,128 | 3,031 | 3,113 | 3,264 |
| Other types of support | 7,041 | 7,819 | 8,524 | 7,909 | 7,261 | 6,343 | 5,909 | 6,149 |
| Industrial engineering: | | | | | | | | |
| Total, all types | 4,488 | 5,397 | 5,843 | 5,682 | 5,685 | 5,104 | 4,960 | 4,910 |
| Fellowships | 241 | 258 | 264 | 278 | 270 | 298 | 232 | 236 |
| Traineeships | 36 | 31 | 27 | 47 | 32 | 37 | 14 | 17 |
| Research assistantships | 1,114 | 1,222 | 1,202 | 1,236 | 1,293 | 1,285 | 1,251 | 1,236 |
| Teaching assistantships | 831 | 874 | 865 | 923 | 917 | 813 | 770 | 766 |
| Other types of support | 2,266 | 3,012 | 3,485 | 3,198 | 3,173 | 2,671 | 2,693 | 2,655 |
| Mechanical engineering: | | | | | | | | |
| Total, all types | 10,589 | 11,415 | 12,079 | 12,128 | 11,642 | 10,933 | 10,437 | 10,174 |
| Fellowships | 709 | 859 | 897 | 901 | 920 | 923 | 892 | 819 |
| Traineeships | 177 | 173 | 162 | 210 | 187 | 187 | 165 | 215 |
| Research assistantships | 4,278 | 4,604 | 4,701 | 4,726 | 4,623 | 4,352 | 4,201 | 4,276 |
| Teaching assistantships | 2,190 | 2,150 | 2,132 | 2,217 | 2,019 | 1,882 | 1,805 | 1,848 |
| Other types of support | 3,235 | 3,629 | 4,187 | 4,074 | 3,893 | 3,589 | 3,374 | 3,016 |
| Other engineering: | | | | | | | | |
| Total, all types | 15,705 | 16,310 | 16,151 | 16,205 | 15,224 | 14,536 | 14,044 | 13,845 |
| Fellowships | 1,581 | 1,821 | 1,879 | 1,882 | 1,710 | 1,604 | 1,483 | 1,600 |
| Traineeships | 282 | 322 | 273 | 274 | 264 | 328 | 264 | 236 |
| Research assistantships | 7,623 | 7,739 | 7,711 | 7,756 | 7,643 | 7,243 | 6,816 | 6,797 |
| Teaching assistantships | 1,802 | 1,955 | 1,670 | 1,665 | 1,643 | 1,512 | 1,453 | 1,420 |
| Other types of support | 4,417 | 4,473 | 4,618 | 4,628 | 3,964 | 3,849 | 4,028 | 3,792 |
| Total, health fields: | | | | | | | | |
| Total, all types | 24,903 | 26,655 | 28,630 | 31,397 | 34,005 | 36,246 | 38,002 | 39,412 |
| Fellowships | 1,688 | 1,670 | 1,833 | 1,944 | 2,075 | 2,137 | 2,397 | 2,353 |
| Traineeships | 4,873 | 4,555 | 4,984 | 4,797 | 4,849 | 4,860 | 4,616 | 4,243 |
| Research assistantships | 3,227 | 3,774 | 3,765 | 3,739 | 4,117 | 4,233 | 4,097 | 4,531 |
| Teaching assistantships | 2,252 | 2,365 | 2,380 | 2,365 | 2,656 | 2,721 | 2,880 | 2,963 |
| Other types of support | 12,863 | 14,291 | 15,668 | 18,552 | 20,308 | 22,295 | 24,012 | 25,322 |

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 40. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field and mechanism of support: 1997

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| Field | Total | Fellowships | Trainee-ships | Research assistantships | Teaching assistantships | Other types of support |
|---|---------|-------------|---------------|-------------------------|-------------------------|------------------------|
| Total, all surveyed fields | 301,573 | 28,298 | 13,715 | 85,543 | 63,059 | 110,958 |
| Total, science and engineering fields | 262,161 | 25,945 | 9,472 | 81,012 | 60,096 | 85,636 |
| Sciences, total | 198,327 | 20,277 | 8,612 | 54,417 | 50,142 | 64,879 |
| Physical sciences, total | 26,268 | 2,138 | 517 | 11,186 | 10,617 | 1,810 |
| Astronomy | 768 | 143 | 17 | 355 | 215 | 38 |
| Chemistry | 15,583 | 1,135 | 357 | 6,392 | 6,788 | 911 |
| Physics | 9,795 | 856 | 143 | 4,402 | 3,596 | 798 |
| Physical sciences, n.e.c. | 122 | 4 | 0 | 37 | 18 | 63 |
| Earth, atmos., & ocean sci., total | 9,934 | 815 | 89 | 4,144 | 2,505 | 2,381 |
| Atmospheric sciences | 964 | 55 | 4 | 628 | 117 | 160 |
| Geosciences | 5,221 | 477 | 43 | 1,878 | 1,890 | 933 |
| Oceanography | 1,924 | 172 | 18 | 1,130 | 196 | 408 |
| Earth, atmos., & ocean sci., n.e.c. | 1,825 | 111 | 24 | 508 | 302 | 880 |
| Mathematical sciences | 11,538 | 1,186 | 176 | 1,329 | 6,483 | 2,364 |
| Computer sciences | 16,488 | 894 | 196 | 3,899 | 3,526 | 7,973 |
| Agricultural sciences | 8,677 | 427 | 113 | 5,021 | 924 | 2,192 |
| Biological sciences, total | 45,064 | 5,406 | 5,009 | 18,265 | 8,554 | 7,830 |
| Anatomy | 1,033 | 175 | 121 | 391 | 121 | 225 |
| Biochemistry | 4,776 | 648 | 536 | 2,682 | 554 | 356 |
| Biology | 8,800 | 974 | 465 | 2,314 | 3,472 | 1,575 |
| Biometry/epidemiology | 2,005 | 195 | 274 | 483 | 117 | 936 |
| Biophysics | 728 | 139 | 143 | 301 | 47 | 98 |
| Botany | 2,049 | 161 | 45 | 1,026 | 598 | 219 |
| Cell biology | 3,649 | 538 | 904 | 1,573 | 404 | 230 |
| Ecology | 1,184 | 158 | 36 | 376 | 435 | 179 |
| Entomology/parasitology | 995 | 56 | 11 | 646 | 156 | 126 |
| Genetics | 1,620 | 174 | 304 | 794 | 97 | 251 |
| Microbio., immunology, & virology | 4,408 | 575 | 665 | 2,117 | 538 | 513 |
| Nutrition | 3,127 | 191 | 123 | 1,250 | 443 | 1,120 |
| Pathology | 1,418 | 247 | 127 | 524 | 55 | 465 |
| Pharmacology | 2,446 | 435 | 535 | 1,112 | 143 | 221 |
| Physiology | 2,103 | 240 | 320 | 687 | 209 | 647 |
| Zoology | 1,513 | 126 | 49 | 417 | 784 | 137 |
| Biosciences, n.e.c. | 3,210 | 374 | 351 | 1,572 | 381 | 532 |
| Psychology | 28,764 | 2,024 | 990 | 4,215 | 5,804 | 15,731 |
| Social sciences, total | 51,594 | 7,387 | 1,522 | 6,358 | 11,729 | 24,598 |
| Agricultural economics | 1,697 | 121 | 22 | 887 | 185 | 482 |
| Anthropology (cultural & social) | 5,624 | 1,227 | 97 | 440 | 1,295 | 2,565 |
| Economics (except agricultural) | 8,521 | 1,385 | 225 | 939 | 2,626 | 3,346 |
| Geography | 2,714 | 181 | 28 | 571 | 993 | 941 |
| Linguistics | 2,272 | 368 | 37 | 201 | 678 | 988 |
| Political science | 15,428 | 2,371 | 730 | 1,266 | 2,726 | 8,335 |
| Sociology | 6,198 | 869 | 233 | 831 | 2,105 | 2,160 |
| Sociology/anthropology | 631 | 21 | 0 | 127 | 156 | 327 |
| Social sciences, other | 8,509 | 844 | 150 | 1,096 | 965 | 5,454 |
| Engineering, total | 63,834 | 5,668 | 860 | 26,595 | 9,954 | 20,757 |
| Aerospace engineering | 2,505 | 251 | 17 | 1,224 | 280 | 733 |
| Agricultural engineering | 748 | 85 | 6 | 429 | 61 | 167 |
| Biomedical engineering | 2,411 | 418 | 149 | 921 | 176 | 747 |
| Chemical engineering | 5,713 | 812 | 94 | 2,948 | 915 | 944 |
| Civil engineering | 10,891 | 832 | 176 | 3,941 | 1,741 | 4,201 |
| Electrical engineering | 18,301 | 1,369 | 122 | 7,397 | 3,264 | 6,149 |
| Engineering science | 1,016 | 131 | 7 | 463 | 139 | 276 |
| Industrial/manufacturing eng. | 4,910 | 236 | 17 | 1,236 | 766 | 2,655 |
| Mechanical engineering | 10,174 | 819 | 215 | 4,276 | 1,848 | 3,016 |
| Metallurgical/materials eng. | 3,646 | 303 | 33 | 2,372 | 363 | 575 |
| Nuclear engineering | 708 | 118 | 17 | 392 | 64 | 117 |
| Engineering, other | 2,811 | 294 | 7 | 996 | 337 | 1,177 |
| Total, health fields | 39,412 | 2,353 | 4,243 | 4,531 | 2,963 | 25,322 |
| Clinical fields | 2,453 | 218 | 345 | 452 | 62 | 1,376 |
| Dental sciences | 1,235 | 114 | 92 | 50 | 189 | 790 |
| Nursing | 7,512 | 353 | 1,993 | 385 | 382 | 4,399 |
| Pharmaceutical sciences | 2,232 | 208 | 56 | 809 | 730 | 429 |
| Preventive medicine/community health | 5,437 | 378 | 483 | 671 | 150 | 3,755 |
| Speech pathology/audiology | 7,332 | 306 | 442 | 668 | 711 | 5,205 |
| Veterinary sciences | 972 | 41 | 44 | 358 | 128 | 401 |
| Other health fields | 12,239 | 735 | 788 | 1,138 | 611 | 8,967 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by mechanism and source of support: 1990-97

Page 1 of 2

| Mechanism and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all types: | | | | | | | | |
| Total, all sources | 250,530 | 261,154 | 273,142 | 276,296 | 275,324 | 269,413 | 266,232 | 262,161 |
| Federal, total | 51,706 | 55,166 | 57,326 | 59,469 | 59,788 | 58,539 | 57,094 | 55,902 |
| Dept. of Defense | 8,425 | 8,640 | 8,753 | 9,220 | 8,951 | 8,834 | 8,317 | 8,568 |
| Dept. of HHS, total | 14,522 | 15,381 | 16,154 | 16,701 | 17,035 | 17,024 | 16,817 | 16,610 |
| NIH | 13,298 | 14,081 | 14,930 | 15,749 | 15,843 | 15,600 | 15,411 | 15,181 |
| Other HHS | 1,224 | 1,300 | 1,224 | 952 | 1,192 | 1,424 | 1,406 | 1,429 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2,212 | 2,480 |
| NSF | 11,932 | 12,542 | 13,223 | 13,325 | 13,656 | 13,447 | 13,258 | 13,169 |
| USDA | 2,629 | 2,982 | 3,099 | 3,202 | 3,297 | 3,152 | 2,902 | 2,560 |
| All other Federal | 14,198 | 15,621 | 16,097 | 17,021 | 16,849 | 16,082 | 13,588 | 12,515 |
| Institutional support | 111,758 | 113,592 | 115,610 | 116,418 | 116,259 | 115,856 | 114,505 | 114,478 |
| Other non-Federal support, total | 24,431 | 25,185 | 25,717 | 24,615 | 24,990 | 23,535 | 22,904 | 22,782 |
| All other U.S. | 18,459 | 19,079 | 19,793 | 19,622 | 19,780 | 18,572 | 18,136 | 18,464 |
| Foreign | 5,972 | 6,106 | 5,924 | 4,993 | 5,210 | 4,963 | 4,768 | 4,318 |
| Self-support | 62,635 | 67,211 | 74,489 | 75,794 | 74,287 | 71,483 | 71,729 | 68,999 |
| Fellowships: | | | | | | | | |
| Total, all sources | 23,080 | 24,575 | 26,293 | 26,679 | 26,337 | 26,234 | 25,899 | 25,945 |
| Federal, total | 5,749 | 6,782 | 7,102 | 6,870 | 6,250 | 6,226 | 6,304 | 6,136 |
| Dept. of Defense | 576 | 673 | 645 | 622 | 523 | 469 | 506 | 502 |
| Dept. of HHS, total | 741 | 807 | 979 | 1,017 | 1,040 | 1,155 | 1,133 | 1,214 |
| NIH | 665 | 711 | 863 | 903 | 909 | 954 | 954 | 989 |
| Other HHS | 76 | 96 | 116 | 114 | 131 | 201 | 179 | 225 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 398 | 349 |
| NSF | 2,075 | 2,218 | 2,339 | 2,256 | 2,263 | 2,305 | 2,439 | 2,300 |
| USDA | 103 | 102 | 110 | 110 | 106 | 116 | 101 | 123 |
| All other Federal | 2,254 | 2,982 | 3,029 | 2,865 | 2,318 | 2,181 | 1,727 | 1,648 |
| Institutional support | 11,788 | 12,081 | 13,129 | 13,711 | 13,663 | 14,020 | 14,097 | 14,890 |
| Other non-Federal support, total | 5,543 | 5,712 | 6,062 | 6,098 | 6,424 | 5,988 | 5,498 | 4,919 |
| All other U.S. | 3,431 | 3,511 | 3,764 | 3,652 | 4,019 | 3,764 | 3,362 | 3,076 |
| Foreign | 2,112 | 2,201 | 2,298 | 2,446 | 2,405 | 2,224 | 2,136 | 1,843 |
| Self-support | N/A |
| Traineeships: | | | | | | | | |
| Total, all sources | 9,958 | 10,287 | 9,852 | 10,082 | 10,137 | 10,429 | 10,197 | 9,472 |
| Federal, total | 4,840 | 5,400 | 5,472 | 5,678 | 5,774 | 5,596 | 5,484 | 5,120 |
| Dept. of Defense | 81 | 112 | 86 | 91 | 109 | 104 | 124 | 108 |
| Dept. of HHS, total | 4,026 | 4,372 | 4,362 | 4,344 | 4,465 | 4,335 | 4,250 | 3,968 |
| NIH | 3,716 | 4,072 | 4,081 | 4,160 | 4,178 | 3,978 | 3,984 | 3,787 |
| Other HHS | 310 | 300 | 281 | 184 | 287 | 357 | 266 | 181 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 65 | 76 |
| NSF | 45 | 80 | 104 | 161 | 256 | 333 | 428 | 379 |
| USDA | 53 | 33 | 28 | 42 | 36 | 17 | 24 | 23 |
| All other Federal | 635 | 803 | 892 | 1,040 | 908 | 807 | 593 | 566 |
| Institutional support | 4,382 | 4,191 | 3,608 | 3,540 | 3,497 | 4,154 | 4,157 | 3,753 |
| Other non-Federal support, total | 736 | 696 | 772 | 864 | 866 | 679 | 556 | 599 |
| All other U.S. | 497 | 511 | 565 | 575 | 646 | 484 | 374 | 450 |
| Foreign | 239 | 185 | 207 | 289 | 220 | 195 | 182 | 149 |
| Self-support | N/A |
| Research assistantships: | | | | | | | | |
| Total, all sources | 75,841 | 79,564 | 82,399 | 84,376 | 85,548 | 83,414 | 81,311 | 81,012 |
| Federal, total | 36,965 | 38,970 | 40,686 | 42,628 | 43,378 | 42,528 | 41,406 | 40,930 |
| Dept. of Defense | 5,355 | 5,414 | 5,667 | 6,158 | 6,121 | 6,177 | 5,887 | 6,248 |
| Dept. of HHS, total | 9,450 | 9,892 | 10,404 | 10,920 | 11,177 | 11,129 | 10,985 | 10,962 |
| NIH | 8,658 | 9,033 | 9,633 | 10,330 | 10,462 | 10,333 | 10,110 | 10,024 |
| Other HHS | 792 | 859 | 771 | 590 | 715 | 796 | 875 | 938 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 1,706 | 2,002 |
| NSF | 9,655 | 10,103 | 10,573 | 10,676 | 10,952 | 10,518 | 10,169 | 10,317 |
| USDA | 2,353 | 2,730 | 2,857 | 2,930 | 3,035 | 2,920 | 2,677 | 2,342 |
| All other Federal | 10,152 | 10,831 | 11,185 | 11,944 | 12,093 | 11,784 | 9,982 | 9,059 |
| Institutional support | 27,213 | 28,228 | 28,778 | 28,545 | 29,183 | 28,702 | 27,727 | 27,664 |
| Other non-Federal support, total | 11,663 | 12,366 | 12,935 | 13,203 | 12,987 | 12,184 | 12,178 | 12,418 |
| All other U.S. | 10,952 | 11,563 | 12,125 | 12,347 | 12,224 | 11,448 | 11,453 | 11,679 |
| Foreign | 711 | 803 | 810 | 856 | 763 | 736 | 725 | 739 |
| Self-support | N/A |

See explanatory information, if any, and SOURCE at end of table.

Table 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by mechanism and source of support: 1990-97

Page 2 of 2

| Mechanism and source of support | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Teaching assistantships: | | | | | | | | |
| Total, all sources | 60,519 | 60,583 | 61,154 | 62,842 | 62,068 | 61,186 | 60,836 | 60,096 |
| Federal, total | 508 | 390 | 547 | 741 | 627 | 624 | 720 | 713 |
| Dept. of Defense | N/A |
| Dept. of HHS, total | 92 | 85 | 164 | 159 | 130 | 111 | 180 | 144 |
| NIH | 74 | 72 | 147 | 154 | 121 | 104 | 176 | 114 |
| Other HHS | 18 | 13 | 17 | 5 | 9 | 7 | 4 | 30 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 2 | 21 |
| NSF | 83 | 64 | 111 | 136 | 98 | 151 | 117 | 80 |
| USDA | 44 | 33 | 22 | 39 | 43 | 37 | 41 | 30 |
| All other Federal | 289 | 208 | 250 | 407 | 356 | 325 | 380 | 438 |
| Institutional support | 59,526 | 59,704 | 60,079 | 61,535 | 60,869 | 60,043 | 59,510 | 58,849 |
| Other non-Federal support, total | 485 | 489 | 528 | 566 | 572 | 519 | 606 | 534 |
| All other U.S. | 485 | 489 | 528 | 566 | 572 | 519 | 606 | 534 |
| Foreign | N/A |
| Self-support | N/A |
| Other types of support: | | | | | | | | |
| Total, all sources | 81,132 | 86,145 | 93,444 | 92,317 | 91,234 | 88,150 | 87,989 | 85,636 |
| Federal, total | 3,644 | 3,624 | 3,519 | 3,552 | 3,759 | 3,565 | 3,180 | 3,003 |
| Dept. of Defense | 2,413 | 2,441 | 2,355 | 2,349 | 2,198 | 2,084 | 1,800 | 1,710 |
| Dept. of HHS, total | 213 | 225 | 245 | 261 | 223 | 294 | 269 | 322 |
| NIH | 185 | 193 | 206 | 202 | 173 | 231 | 187 | 267 |
| Other HHS | 28 | 32 | 39 | 59 | 50 | 63 | 82 | 55 |
| NASA ¹ | N/A | N/A | N/A | N/A | N/A | N/A | 41 | 32 |
| NSF | 74 | 77 | 96 | 96 | 87 | 140 | 105 | 93 |
| USDA | 76 | 84 | 82 | 81 | 77 | 62 | 59 | 42 |
| All other Federal | 868 | 797 | 741 | 765 | 1,174 | 985 | 906 | 804 |
| Institutional support | 8,849 | 9,388 | 10,016 | 9,087 | 9,047 | 8,937 | 9,014 | 9,322 |
| Other non-Federal support, total | 6,004 | 5,922 | 5,420 | 3,884 | 4,141 | 4,165 | 4,066 | 4,312 |
| All other U.S. | 3,094 | 3,005 | 2,811 | 2,482 | 2,319 | 2,357 | 2,341 | 2,725 |
| Foreign | 2,910 | 2,917 | 2,609 | 1,402 | 1,822 | 1,808 | 1,725 | 1,587 |
| Self-support | 62,635 | 67,211 | 74,489 | 75,794 | 74,287 | 71,483 | 71,729 | 68,999 |

¹ Data for NASA were not collected separately prior to 1996.

KEY: N/A = Not applicable

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, source of support, and field: 1997

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| Sex and source of support | Total, all surveyed fields | Sciences | | | | | | | | |
|--------------------------------|----------------------------|-----------------|-------------------|--------------------------------------|-----------------------|-------------------|-----------------------|---------------------|------------|-----------------|
| | | Sciences, total | Physical sciences | Earth, atmospheric, & ocean sciences | Mathematical sciences | Computer sciences | Agricultural sciences | Biological sciences | Psychology | Social sciences |
| Total | | | | | | | | | | |
| Total, all sources | 301,573 | 198,327 | 26,268 | 9,934 | 11,538 | 16,488 | 8,677 | 45,064 | 28,764 | 51,594 |
| Federal, total | 63,019 | 40,279 | 9,350 | 3,082 | 1,158 | 3,114 | 1,741 | 16,111 | 2,627 | 3,096 |
| Dept. of Defense | 8,876 | 3,850 | 1,031 | 364 | 361 | 1,411 | 39 | 358 | 110 | 176 |
| Dept. of HHS, total | 21,820 | 15,702 | 1,928 | 40 | 96 | 106 | 29 | 11,723 | 1,429 | 351 |
| NIH | 17,838 | 14,420 | 1,624 | 27 | 66 | 78 | 21 | 11,141 | 1,179 | 284 |
| Other HHS | 3,982 | 1,282 | 304 | 13 | 30 | 28 | 8 | 582 | 250 | 67 |
| NASA | 2,501 | 1,257 | 569 | 350 | 19 | 114 | 20 | 108 | 12 | 65 |
| NSF | 13,264 | 8,606 | 3,362 | 1,198 | 388 | 1,076 | 100 | 1,518 | 277 | 687 |
| USDA | 2,594 | 2,347 | 30 | 51 | 16 | 12 | 937 | 921 | 7 | 373 |
| All other Federal | 13,964 | 8,517 | 2,430 | 1,079 | 278 | 395 | 616 | 1,483 | 792 | 1,444 |
| Institutional support | 123,272 | 91,146 | 13,809 | 4,125 | 8,164 | 5,544 | 3,553 | 19,432 | 12,168 | 24,351 |
| Other non-Federal, total | 24,698 | 13,820 | 1,860 | 873 | 473 | 1,130 | 1,544 | 3,528 | 1,185 | 3,227 |
| All other U.S. | 19,893 | 10,918 | 1,646 | 689 | 296 | 974 | 1,208 | 3,010 | 1,128 | 1,967 |
| Foreign | 4,805 | 2,902 | 214 | 184 | 177 | 156 | 336 | 518 | 57 | 1,260 |
| Self-support | 90,584 | 53,082 | 1,249 | 1,854 | 1,743 | 6,700 | 1,839 | 5,993 | 12,784 | 20,920 |
| Men | | | | | | | | | | |
| Total, all sources | 173,684 | 110,110 | 19,069 | 6,333 | 7,832 | 12,331 | 5,349 | 23,191 | 9,088 | 26,917 |
| Federal, total | 39,834 | 24,740 | 7,006 | 2,039 | 873 | 2,574 | 1,123 | 8,535 | 933 | 1,657 |
| Dept. of Defense | 7,410 | 3,108 | 859 | 280 | 316 | 1,205 | 29 | 213 | 65 | 141 |
| Dept. of HHS, total | 10,521 | 8,216 | 1,250 | 20 | 72 | 90 | 18 | 6,172 | 483 | 111 |
| NIH | 9,282 | 7,533 | 1,042 | 15 | 49 | 68 | 11 | 5,860 | 403 | 85 |
| Other HHS | 1,239 | 683 | 208 | 5 | 23 | 22 | 7 | 312 | 80 | 26 |
| NASA | 1,937 | 898 | 421 | 242 | 15 | 92 | 12 | 60 | 9 | 47 |
| NSF | 9,534 | 5,846 | 2,548 | 752 | 271 | 887 | 59 | 847 | 119 | 363 |
| USDA | 1,556 | 1,389 | 21 | 32 | 11 | 10 | 607 | 473 | 2 | 233 |
| All other Federal | 8,876 | 5,283 | 1,907 | 713 | 188 | 290 | 398 | 770 | 255 | 762 |
| Institutional support | 72,790 | 51,017 | 9,840 | 2,570 | 5,546 | 4,188 | 2,077 | 10,003 | 4,112 | 12,681 |
| Other non-Federal, total | 16,636 | 8,457 | 1,326 | 613 | 331 | 880 | 1,036 | 1,890 | 406 | 1,975 |
| All other U.S. | 13,165 | 6,417 | 1,155 | 473 | 196 | 756 | 781 | 1,596 | 380 | 1,080 |
| Foreign | 3,471 | 2,040 | 171 | 140 | 135 | 124 | 255 | 294 | 26 | 895 |
| Self-support | 44,424 | 25,896 | 897 | 1,111 | 1,082 | 4,689 | 1,113 | 2,763 | 3,637 | 10,604 |
| Women | | | | | | | | | | |
| Total, all sources | 127,889 | 88,217 | 7,199 | 3,601 | 3,706 | 4,157 | 3,328 | 21,873 | 19,676 | 24,677 |
| Federal, total | 23,185 | 15,539 | 2,344 | 1,043 | 285 | 540 | 618 | 7,576 | 1,694 | 1,439 |
| Dept. of Defense | 1,466 | 742 | 172 | 84 | 45 | 206 | 10 | 145 | 45 | 35 |
| Dept. of HHS, total | 11,299 | 7,486 | 678 | 20 | 24 | 16 | 11 | 5,551 | 946 | 240 |
| NIH | 8,556 | 6,887 | 582 | 12 | 17 | 10 | 10 | 5,281 | 776 | 199 |
| Other HHS | 2,743 | 599 | 96 | 8 | 7 | 6 | 1 | 270 | 170 | 41 |
| NASA | 564 | 359 | 148 | 108 | 4 | 22 | 8 | 48 | 3 | 18 |
| NSF | 3,730 | 2,760 | 814 | 446 | 117 | 189 | 41 | 671 | 158 | 324 |
| USDA | 1,038 | 958 | 9 | 19 | 5 | 2 | 330 | 448 | 5 | 140 |
| All other Federal | 5,088 | 3,234 | 523 | 366 | 90 | 105 | 218 | 713 | 537 | 682 |
| Institutional support | 50,482 | 40,129 | 3,969 | 1,555 | 2,618 | 1,356 | 1,476 | 9,429 | 8,056 | 11,670 |
| Other non-Federal, total | 8,062 | 5,363 | 534 | 260 | 142 | 250 | 508 | 1,638 | 779 | 1,252 |
| All other U.S. | 6,728 | 4,501 | 491 | 216 | 100 | 218 | 427 | 1,414 | 748 | 887 |
| Foreign | 1,334 | 862 | 43 | 44 | 42 | 32 | 81 | 224 | 31 | 365 |
| Self-support | 46,160 | 27,186 | 352 | 743 | 661 | 2,011 | 726 | 3,230 | 9,147 | 10,316 |

See explanatory information, if any, and SOURCE at end of table.

Table 42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, source of support, and field: 1997

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| Sex and source of support | Engineering | | | | | | | | | Health fields |
|--------------------------------|--------------------|-----------------------|----------------------|-------------------|------------------------|------------------------|------------------------|---------------------------------------|-------------------|---------------|
| | Engineering, total | Aerospace engineering | Chemical engineering | Civil engineering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallurgical & materials engineering | Other engineering | |
| Total | | | | | | | | | | |
| Total, all sources | 63,834 | 2,505 | 5,713 | 10,891 | 18,301 | 4,910 | 10,174 | 3,646 | 7,694 | 39,412 |
| Federal, total | 15,623 | 1,127 | 1,622 | 1,769 | 4,338 | 588 | 2,559 | 1,468 | 2,152 | 7,117 |
| Dept. of Defense | 4,718 | 485 | 158 | 223 | 1,961 | 193 | 725 | 441 | 532 | 308 |
| Dept. of HHS, total | 908 | 6 | 137 | 47 | 113 | 36 | 109 | 21 | 439 | 5,210 |
| NIH | 761 | 3 | 121 | 41 | 68 | 30 | 70 | 9 | 419 | 2,657 |
| Other HHS | 147 | 3 | 16 | 6 | 45 | 6 | 39 | 12 | 20 | 2,553 |
| NASA | 1,223 | 355 | 77 | 121 | 214 | 21 | 282 | 70 | 83 | 21 |
| NSF | 4,563 | 109 | 705 | 521 | 1,324 | 143 | 832 | 509 | 420 | 95 |
| USDA | 213 | 0 | 25 | 40 | 14 | 1 | 12 | 4 | 117 | 34 |
| All other Federal | 3,998 | 172 | 520 | 817 | 712 | 194 | 599 | 423 | 561 | 1,449 |
| Institutional support | 23,332 | 689 | 2,202 | 4,645 | 6,541 | 1,672 | 3,845 | 1,100 | 2,638 | 8,794 |
| Other non-Federal, total | 8,962 | 274 | 1,128 | 1,064 | 2,781 | 501 | 1,438 | 647 | 1,129 | 1,916 |
| All other U.S. | 7,546 | 214 | 948 | 844 | 2,445 | 404 | 1,270 | 566 | 855 | 1,429 |
| Foreign | 1,416 | 60 | 180 | 220 | 336 | 97 | 168 | 81 | 274 | 487 |
| Self-support | 15,917 | 415 | 761 | 3,413 | 4,641 | 2,149 | 2,332 | 431 | 1,775 | 21,585 |
| Men | | | | | | | | | | |
| Total, all sources | 51,761 | 2,205 | 4,376 | 8,085 | 15,626 | 3,856 | 8,929 | 2,794 | 5,890 | 11,813 |
| Federal, total | 12,826 | 997 | 1,236 | 1,299 | 3,750 | 479 | 2,214 | 1,167 | 1,684 | 2,268 |
| Dept. of Defense | 4,148 | 450 | 135 | 185 | 1,735 | 172 | 641 | 362 | 468 | 154 |
| Dept. of HHS, total | 668 | 5 | 106 | 26 | 93 | 20 | 83 | 17 | 318 | 1,637 |
| NIH | 557 | 2 | 91 | 22 | 56 | 17 | 57 | 8 | 304 | 1,192 |
| Other HHS | 111 | 3 | 15 | 4 | 37 | 3 | 26 | 9 | 14 | 445 |
| NASA | 1,022 | 308 | 55 | 102 | 185 | 15 | 241 | 50 | 66 | 17 |
| NSF | 3,646 | 90 | 515 | 371 | 1,135 | 116 | 711 | 394 | 314 | 42 |
| USDA | 150 | 0 | 17 | 24 | 12 | 1 | 12 | 3 | 81 | 17 |
| All other Federal | 3,192 | 144 | 408 | 591 | 590 | 155 | 526 | 341 | 437 | 401 |
| Institutional support | 18,817 | 596 | 1,684 | 3,439 | 5,631 | 1,291 | 3,381 | 820 | 1,975 | 2,956 |
| Other non-Federal, total | 7,374 | 247 | 868 | 828 | 2,365 | 410 | 1,282 | 492 | 882 | 805 |
| All other U.S. | 6,183 | 193 | 732 | 643 | 2,089 | 328 | 1,130 | 426 | 642 | 565 |
| Foreign | 1,191 | 54 | 136 | 185 | 276 | 82 | 152 | 66 | 240 | 240 |
| Self-support | 12,744 | 365 | 588 | 2,519 | 3,880 | 1,676 | 2,052 | 315 | 1,349 | 5,784 |
| Women | | | | | | | | | | |
| Total, all sources | 12,073 | 300 | 1,337 | 2,806 | 2,675 | 1,054 | 1,245 | 852 | 1,804 | 27,599 |
| Federal, total | 2,797 | 130 | 386 | 470 | 588 | 109 | 345 | 301 | 468 | 4,849 |
| Dept. of Defense | 570 | 35 | 23 | 38 | 226 | 21 | 84 | 79 | 64 | 154 |
| Dept. of HHS, total | 240 | 1 | 31 | 21 | 20 | 16 | 26 | 4 | 121 | 3,573 |
| NIH | 204 | 1 | 30 | 19 | 12 | 13 | 13 | 1 | 115 | 1,465 |
| Other HHS | 36 | 0 | 1 | 2 | 8 | 3 | 13 | 3 | 6 | 2,108 |
| NASA | 201 | 47 | 22 | 19 | 29 | 6 | 41 | 20 | 17 | 4 |
| NSF | 917 | 19 | 190 | 150 | 189 | 27 | 121 | 115 | 106 | 53 |
| USDA | 63 | 0 | 8 | 16 | 2 | 0 | 0 | 1 | 36 | 17 |
| All other Federal | 806 | 28 | 112 | 226 | 122 | 39 | 73 | 82 | 124 | 1,048 |
| Institutional support | 4,515 | 93 | 518 | 1,206 | 910 | 381 | 464 | 280 | 663 | 5,838 |
| Other non-Federal, total | 1,588 | 27 | 260 | 236 | 416 | 91 | 156 | 155 | 247 | 1,111 |
| All other U.S. | 1,363 | 21 | 216 | 201 | 356 | 76 | 140 | 140 | 213 | 864 |
| Foreign | 225 | 6 | 44 | 35 | 60 | 15 | 16 | 15 | 34 | 247 |
| Self-support | 3,173 | 50 | 173 | 894 | 761 | 473 | 280 | 116 | 426 | 15,801 |

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 43. Full-time graduate science, engineering, and health students with U.S. citizenship
in doctorate-granting institutions, by detailed field: 1990-97**

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all surveyed fields | 187,409 | 195,349 | 208,126 | 217,062 | 221,979 | 221,188 | 219,425 | 215,724 |
| Total, science and engineering fields | 165,955 | 172,349 | 183,096 | 189,382 | 191,491 | 188,482 | 185,277 | 180,140 |
| Sciences, total | 132,640 | 136,488 | 144,548 | 149,567 | 151,797 | 151,289 | 149,967 | 146,482 |
| Physical sciences, total | 17,488 | 17,865 | 18,397 | 18,813 | 18,640 | 17,931 | 17,206 | 16,377 |
| Astronomy | 603 | 598 | 621 | 638 | 694 | 646 | 642 | 584 |
| Chemistry | 10,003 | 10,144 | 10,518 | 10,861 | 10,891 | 10,650 | 10,466 | 10,108 |
| Physics | 6,805 | 7,041 | 7,163 | 7,233 | 6,941 | 6,503 | 5,980 | 5,591 |
| Physical sciences, n.e.c. | 77 | 82 | 95 | 81 | 114 | 132 | 118 | 94 |
| Earth, atmos., & ocean sci., total | 7,477 | 7,399 | 7,867 | 8,165 | 8,067 | 8,176 | 7,889 | 7,738 |
| Atmospheric sciences | 564 | 569 | 651 | 706 | 731 | 708 | 709 | 684 |
| Geosciences | 4,287 | 4,157 | 4,224 | 4,295 | 4,232 | 4,220 | 4,102 | 4,054 |
| Oceanography | 1,355 | 1,368 | 1,502 | 1,575 | 1,602 | 1,605 | 1,531 | 1,455 |
| Earth, atmos., & ocean sci., n.e.c. | 1,271 | 1,305 | 1,490 | 1,589 | 1,502 | 1,643 | 1,547 | 1,545 |
| Mathematical sciences | 7,571 | 7,949 | 8,481 | 8,554 | 8,312 | 7,777 | 7,396 | 6,832 |
| Computer sciences | 7,874 | 7,606 | 8,008 | 8,145 | 8,007 | 7,857 | 7,538 | 7,621 |
| Agricultural sciences | 5,958 | 6,089 | 6,305 | 6,323 | 6,351 | 6,430 | 6,347 | 6,338 |
| Biological sciences, total | 29,104 | 29,830 | 31,168 | 32,856 | 34,554 | 35,407 | 35,446 | 34,959 |
| Anatomy | 709 | 720 | 723 | 738 | 761 | 738 | 825 | 820 |
| Biochemistry | 3,187 | 3,225 | 3,314 | 3,409 | 3,516 | 3,598 | 3,518 | 3,424 |
| Biology | 6,395 | 6,546 | 6,678 | 6,920 | 7,065 | 6,948 | 6,935 | 7,108 |
| Biometry/epidemiology | 889 | 983 | 1,147 | 1,448 | 1,523 | 1,593 | 1,694 | 1,569 |
| Biophysics | 407 | 433 | 479 | 541 | 562 | 602 | 632 | 558 |
| Botany | 1,510 | 1,439 | 1,474 | 1,534 | 1,607 | 1,507 | 1,501 | 1,439 |
| Cell biology | 1,950 | 2,097 | 2,269 | 2,459 | 2,744 | 2,903 | 2,894 | 2,889 |
| Ecology | 727 | 758 | 844 | 875 | 1,026 | 1,122 | 1,096 | 1,053 |
| Entomology/parasitology | 699 | 679 | 712 | 718 | 743 | 709 | 742 | 736 |
| Genetics | 965 | 1,065 | 1,148 | 1,274 | 1,205 | 1,232 | 1,242 | 1,235 |
| Microbio., immunology, & virology | 3,217 | 3,210 | 3,306 | 3,372 | 3,452 | 3,538 | 3,504 | 3,457 |
| Nutrition | 1,737 | 1,714 | 1,712 | 1,730 | 1,980 | 2,162 | 2,289 | 2,180 |
| Pathology | 776 | 773 | 818 | 927 | 1,027 | 1,032 | 1,022 | 1,139 |
| Pharmacology | 1,652 | 1,672 | 1,717 | 1,887 | 2,045 | 2,000 | 1,943 | 1,910 |
| Physiology | 1,495 | 1,525 | 1,528 | 1,623 | 1,647 | 1,867 | 1,797 | 1,701 |
| Zoology | 1,382 | 1,452 | 1,474 | 1,482 | 1,440 | 1,513 | 1,415 | 1,330 |
| Biosciences, n.e.c. | 1,407 | 1,539 | 1,825 | 1,919 | 2,211 | 2,343 | 2,397 | 2,411 |
| Psychology | 24,207 | 25,070 | 26,286 | 26,820 | 26,918 | 26,980 | 27,233 | 27,269 |
| Social sciences, total | 32,961 | 34,680 | 38,036 | 39,891 | 40,948 | 40,731 | 40,912 | 39,348 |
| Agricultural economics | 1,024 | 1,041 | 1,097 | 1,048 | 1,083 | 1,056 | 962 | 881 |
| Anthropology (cultural & social) | 4,035 | 4,272 | 4,516 | 4,661 | 5,051 | 5,085 | 5,280 | 5,032 |
| Economics (except agricultural) | 4,550 | 4,927 | 5,147 | 5,251 | 5,206 | 4,885 | 4,500 | 3,906 |
| Geography | 1,757 | 1,933 | 2,150 | 2,340 | 2,447 | 2,350 | 2,364 | 2,287 |
| Linguistics | 1,501 | 1,467 | 1,455 | 1,555 | 1,533 | 1,517 | 1,577 | 1,453 |
| Political science | 11,322 | 11,877 | 13,435 | 14,207 | 13,904 | 13,485 | 13,238 | 12,709 |
| Sociology | 4,069 | 4,340 | 4,834 | 5,056 | 5,280 | 5,392 | 5,267 | 5,253 |
| Sociology/anthropology | 573 | 474 | 515 | 541 | 574 | 542 | 525 | 559 |
| Social sciences, other | 4,130 | 4,349 | 4,887 | 5,232 | 5,870 | 6,419 | 7,199 | 7,268 |
| Engineering, total | 33,315 | 35,861 | 38,548 | 39,815 | 39,694 | 37,193 | 35,310 | 33,658 |
| Aerospace engineering | 1,834 | 2,137 | 2,210 | 2,144 | 1,834 | 1,592 | 1,402 | 1,312 |
| Agricultural engineering | 330 | 330 | 377 | 403 | 438 | 414 | 393 | 397 |
| Biomedical engineering | 1,184 | 1,246 | 1,423 | 1,544 | 1,534 | 1,623 | 1,657 | 1,767 |
| Chemical engineering | 2,657 | 2,784 | 2,926 | 3,084 | 3,336 | 3,275 | 3,342 | 3,223 |
| Civil engineering | 5,197 | 5,891 | 6,683 | 7,084 | 7,481 | 7,246 | 7,147 | 6,690 |
| Electrical engineering | 9,275 | 9,576 | 10,155 | 10,006 | 9,997 | 8,982 | 8,387 | 8,177 |
| Engineering science | 734 | 767 | 795 | 822 | 829 | 823 | 628 | 618 |
| Industrial/manufacturing eng. | 2,188 | 2,639 | 2,945 | 3,068 | 3,025 | 2,696 | 2,397 | 2,281 |
| Mechanical engineering | 5,644 | 5,992 | 6,651 | 7,075 | 6,934 | 6,427 | 5,875 | 5,417 |
| Metallurgical/materials eng. | 1,976 | 2,057 | 2,239 | 2,253 | 2,315 | 2,147 | 1,956 | 1,885 |
| Nuclear engineering | 577 | 590 | 611 | 634 | 618 | 536 | 487 | 434 |
| Engineering, other | 1,719 | 1,852 | 1,533 | 1,698 | 1,353 | 1,432 | 1,639 | 1,457 |
| Total, health fields | 21,454 | 23,000 | 25,030 | 27,680 | 30,488 | 32,706 | 34,148 | 35,584 |
| Clinical fields | 1,176 | 1,368 | 1,502 | 1,665 | 1,834 | 1,919 | 2,002 | 2,238 |
| Dental sciences | 643 | 652 | 760 | 769 | 838 | 856 | 835 | 928 |
| Nursing | 5,386 | 5,444 | 5,425 | 5,748 | 6,495 | 6,927 | 6,953 | 7,217 |
| Pharmaceutical sciences | 1,189 | 1,214 | 1,100 | 1,176 | 1,317 | 1,195 | 1,173 | 1,170 |
| Preventive medicine/community health | 3,498 | 3,410 | 3,912 | 4,375 | 4,620 | 5,129 | 4,900 | 4,684 |
| Speech pathology/audiology | 4,393 | 4,820 | 5,364 | 5,942 | 6,303 | 6,417 | 6,835 | 7,068 |
| Veterinary sciences | 501 | 487 | 515 | 459 | 474 | 481 | 459 | 705 |
| Other health fields | 4,668 | 5,605 | 6,452 | 7,546 | 8,607 | 9,782 | 10,991 | 11,574 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 44. Full-time graduate science, engineering, and health students without U.S. citizenship
in doctorate-granting institutions, by detailed field: 1990-97**

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, all surveyed fields | 88,024 | 92,460 | 93,646 | 90,631 | 87,350 | 84,471 | 84,809 | 85,849 |
| Total, science and engineering fields | 84,575 | 88,805 | 90,046 | 86,914 | 83,833 | 80,931 | 80,955 | 82,021 |
| Sciences, total | 53,854 | 55,600 | 56,373 | 55,061 | 54,028 | 52,296 | 52,198 | 51,845 |
| Physical sciences, total | 11,367 | 11,588 | 11,677 | 11,133 | 10,721 | 10,302 | 10,111 | 9,891 |
| Astronomy | 187 | 212 | 219 | 210 | 259 | 225 | 212 | 184 |
| Chemistry | 5,984 | 6,193 | 6,136 | 5,939 | 5,810 | 5,688 | 5,607 | 5,475 |
| Physics | 5,172 | 5,157 | 5,289 | 4,947 | 4,602 | 4,347 | 4,263 | 4,204 |
| Physical sciences, n.e.c. | 24 | 26 | 33 | 37 | 50 | 42 | 29 | 28 |
| Earth, atmos., & ocean sci., total | 2,381 | 2,524 | 2,618 | 2,634 | 2,817 | 2,552 | 2,366 | 2,196 |
| Atmospheric sciences | 264 | 288 | 307 | 272 | 250 | 248 | 268 | 280 |
| Geosciences | 1,325 | 1,378 | 1,484 | 1,504 | 1,544 | 1,388 | 1,292 | 1,167 |
| Oceanography | 532 | 563 | 559 | 555 | 661 | 578 | 507 | 469 |
| Earth, atmos., & ocean sci., n.e.c. | 260 | 295 | 268 | 303 | 362 | 338 | 299 | 280 |
| Mathematical sciences | 5,698 | 5,678 | 5,535 | 5,290 | 5,187 | 4,966 | 4,928 | 4,706 |
| Computer sciences | 7,024 | 7,264 | 7,761 | 7,682 | 7,382 | 7,359 | 8,095 | 8,867 |
| Agricultural sciences | 2,790 | 2,784 | 2,804 | 2,779 | 2,781 | 2,726 | 2,535 | 2,339 |
| Biological sciences, total | 10,491 | 11,452 | 11,664 | 11,803 | 11,656 | 11,028 | 10,391 | 10,105 |
| Anatomy | 202 | 241 | 237 | 239 | 222 | 240 | 217 | 213 |
| Biochemistry | 1,623 | 1,715 | 1,716 | 1,729 | 1,685 | 1,567 | 1,431 | 1,352 |
| Biology | 1,642 | 1,746 | 1,766 | 1,714 | 1,629 | 1,614 | 1,604 | 1,692 |
| Biometry/epidemiology | 342 | 448 | 487 | 542 | 533 | 500 | 468 | 436 |
| Biophysics | 198 | 246 | 249 | 214 | 208 | 198 | 175 | 170 |
| Botany | 831 | 847 | 805 | 817 | 738 | 639 | 627 | 610 |
| Cell biology | 535 | 619 | 692 | 727 | 848 | 789 | 775 | 760 |
| Ecology | 151 | 150 | 132 | 165 | 161 | 154 | 143 | 131 |
| Entomology/parasitology | 298 | 335 | 304 | 321 | 323 | 332 | 285 | 259 |
| Genetics | 290 | 306 | 340 | 366 | 348 | 340 | 363 | 385 |
| Microbio., immunology, & virology | 1,144 | 1,191 | 1,139 | 1,228 | 1,246 | 1,128 | 1,027 | 951 |
| Nutrition | 1,036 | 1,109 | 1,062 | 1,180 | 1,092 | 1,110 | 1,007 | 947 |
| Pathology | 279 | 312 | 320 | 337 | 332 | 318 | 317 | 279 |
| Pharmacology | 570 | 632 | 680 | 612 | 627 | 529 | 556 | 536 |
| Physiology | 581 | 638 | 632 | 597 | 574 | 509 | 420 | 402 |
| Zoology | 289 | 308 | 294 | 261 | 272 | 228 | 210 | 183 |
| Biosciences, n.e.c. | 480 | 609 | 809 | 754 | 818 | 833 | 766 | 799 |
| Psychology | 1,385 | 1,497 | 1,497 | 1,458 | 1,642 | 1,498 | 1,472 | 1,495 |
| Social sciences, total | 12,718 | 12,813 | 12,817 | 12,282 | 11,842 | 11,865 | 12,300 | 12,246 |
| Agricultural economics | 910 | 935 | 972 | 862 | 809 | 892 | 797 | 816 |
| Anthropology (cultural & social) | 695 | 715 | 715 | 671 | 667 | 577 | 586 | 592 |
| Economics (except agricultural) | 4,487 | 4,616 | 4,669 | 4,526 | 4,448 | 4,517 | 4,732 | 4,615 |
| Geography | 418 | 392 | 417 | 420 | 384 | 391 | 393 | 427 |
| Linguistics | 1,051 | 1,043 | 946 | 892 | 887 | 865 | 856 | 819 |
| Political science | 2,610 | 2,668 | 2,669 | 2,653 | 2,507 | 2,537 | 2,836 | 2,719 |
| Sociology | 1,355 | 1,266 | 1,246 | 1,111 | 1,015 | 892 | 898 | 945 |
| Sociology/anthropology | 133 | 109 | 97 | 72 | 70 | 75 | 65 | 72 |
| Social sciences, other | 1,059 | 1,069 | 1,086 | 1,075 | 1,055 | 1,119 | 1,137 | 1,241 |
| Engineering, total | 30,721 | 33,205 | 33,673 | 31,853 | 29,805 | 28,635 | 28,757 | 30,176 |
| Aerospace engineering | 1,112 | 1,121 | 1,059 | 1,083 | 1,133 | 1,076 | 1,143 | 1,193 |
| Agricultural engineering | 469 | 493 | 463 | 432 | 441 | 445 | 406 | 351 |
| Biomedical engineering | 577 | 654 | 715 | 690 | 712 | 654 | 624 | 644 |
| Chemical engineering | 2,763 | 2,969 | 2,974 | 2,918 | 2,718 | 2,630 | 2,514 | 2,490 |
| Civil engineering | 4,680 | 5,101 | 5,333 | 4,898 | 4,694 | 4,535 | 4,234 | 4,201 |
| Electrical engineering | 8,682 | 9,623 | 10,077 | 9,663 | 8,722 | 8,587 | 9,002 | 10,124 |
| Engineering science | 507 | 590 | 613 | 573 | 514 | 418 | 426 | 398 |
| Industrial/manufacturing eng. | 2,300 | 2,758 | 2,898 | 2,614 | 2,660 | 2,408 | 2,563 | 2,629 |
| Mechanical engineering | 4,945 | 5,423 | 5,428 | 5,053 | 4,708 | 4,506 | 4,562 | 4,757 |
| Metallurgical/materials eng. | 1,934 | 1,981 | 2,016 | 1,973 | 1,769 | 1,717 | 1,731 | 1,761 |
| Nuclear engineering | 503 | 490 | 473 | 436 | 379 | 347 | 284 | 274 |
| Engineering, other | 2,249 | 2,002 | 1,624 | 1,520 | 1,355 | 1,312 | 1,268 | 1,354 |
| Total, health fields | 3,449 | 3,655 | 3,600 | 3,717 | 3,517 | 3,540 | 3,854 | 3,828 |
| Clinical fields | 272 | 314 | 371 | 383 | 356 | 252 | 232 | 215 |
| Dental sciences | 184 | 223 | 228 | 236 | 210 | 240 | 281 | 307 |
| Nursing | 182 | 230 | 202 | 227 | 275 | 284 | 242 | 295 |
| Pharmaceutical sciences | 959 | 984 | 974 | 954 | 871 | 957 | 1,052 | 1,062 |
| Preventive medicine/community health | 964 | 961 | 838 | 865 | 722 | 721 | 788 | 753 |
| Speech pathology/audiology | 264 | 280 | 288 | 299 | 292 | 248 | 258 | 264 |
| Veterinary sciences | 197 | 219 | 228 | 214 | 205 | 238 | 263 | 267 |
| Other health fields | 427 | 444 | 471 | 539 | 586 | 600 | 738 | 665 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

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| Institutional ranking | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Total, all institutions | 352,804 | 365,499 | 380,923 | 384,986 | 381,554 | 372,994 | 366,805 | 359,476 |
| 1 University of Michigan | 4,742 | 4,772 | 5,069 | 5,094 | 5,067 | 4,890 | 4,966 | 4,665 |
| 2 Texas A&M University | 4,871 | 4,962 | 5,250 | 5,117 | 4,788 | 4,526 | 4,752 | 4,620 |
| 3 University of Wisconsin-Madison | 5,073 | 5,257 | 5,412 | 5,466 | 5,294 | 5,044 | 4,698 | 4,507 |
| 4 University of Minnesota | 5,019 | 5,148 | 5,168 | 5,316 | 5,072 | 4,836 | 4,713 | 4,487 |
| 5 Univ of Illinois at Urbana-Champaign | 4,814 | 4,825 | 4,929 | 4,998 | 4,885 | 4,920 | 4,573 | 4,389 |
| 6 University of Calif at Berkeley | 4,715 | 4,516 | 4,559 | 4,481 | 4,430 | 4,460 | 4,453 | 4,345 |
| 7 Stanford University | 4,209 | 4,294 | 4,490 | 4,661 | 4,495 | 4,526 | 4,510 | 4,322 |
| 8 University of Southern California | 5,266 | 5,171 | 5,399 | 5,260 | 4,546 | 4,272 | 4,126 | 4,259 |
| 9 University of Colorado | 3,636 | 3,834 | 4,175 | 4,220 | 4,009 | 4,067 | 4,307 | 4,162 |
| 10 Massachusetts Institute of Technology | 4,280 | 4,308 | 4,342 | 4,382 | 4,343 | 4,206 | 4,168 | 4,074 |
| Total, 1st 10 institutions | 46,625 | 47,087 | 48,793 | 48,995 | 46,929 | 45,747 | 45,266 | 43,830 |
| 11 Pennsylvania State University | 4,128 | 4,244 | 4,250 | 4,261 | 4,223 | 4,271 | 4,054 | 3,951 |
| 12 University of Maryland - College Park | 3,856 | 3,812 | 3,899 | 3,972 | 4,008 | 4,024 | 4,026 | 3,880 |
| 13 University of Texas at Austin | 4,306 | 4,559 | 4,715 | 4,722 | 4,550 | 4,199 | 3,529 | 3,864 |
| 14 George Washington University | 4,138 | 4,207 | 4,584 | 4,517 | 4,532 | 4,305 | 4,150 | 3,851 |
| 15 Ohio State University | 4,371 | 4,596 | 4,607 | 4,671 | 4,420 | 4,332 | 4,053 | 3,764 |
| 16 University of Washington | 3,737 | 3,876 | 3,783 | 3,748 | 3,764 | 3,757 | 3,639 | 3,734 |
| 17 North Carolina State University | 3,004 | 3,035 | 3,230 | 3,034 | 3,342 | 3,405 | 3,492 | 3,553 |
| 18 Rutgers the State Univ of New Jersey | 3,938 | 3,991 | 3,975 | 3,920 | 3,867 | 3,802 | 3,645 | 3,459 |
| 19 Purdue University | 3,645 | 3,739 | 3,871 | 3,871 | 3,854 | 3,718 | 3,566 | 3,436 |
| 20 Virginia Polytechnic Inst and State Univ | 3,194 | 3,158 | 3,326 | 3,381 | 3,298 | 3,506 | 3,572 | 3,419 |
| Total, 1st 20 institutions | 84,942 | 86,304 | 89,033 | 89,092 | 86,787 | 85,066 | 82,992 | 80,741 |
| 21 Georgia Institute of Technology | 2,972 | 3,326 | 3,548 | 3,649 | 3,688 | 3,540 | 3,472 | 3,412 |
| 22 University of California, Los Angeles | 3,140 | 3,211 | 3,271 | 3,448 | 3,832 | 3,626 | 3,551 | 3,412 |
| 23 University of Florida | 3,052 | 3,224 | 3,471 | 3,583 | 3,502 | 3,427 | 3,400 | 3,411 |
| 24 Cornell University | 3,323 | 3,376 | 3,700 | 3,707 | 3,683 | 3,640 | 3,495 | 3,225 |
| 25 Arizona State University | 2,750 | 2,893 | 3,156 | 3,154 | 3,077 | 3,080 | 3,084 | 3,100 |
| 26 Harvard University | 2,839 | 3,032 | 3,253 | 3,244 | 3,231 | 3,185 | 3,097 | 3,024 |
| 27 Louisiana State University | 2,467 | 2,738 | 2,916 | 3,036 | 3,127 | 3,184 | 3,133 | 3,003 |
| 28 Indiana University | 3,034 | 3,255 | 3,458 | 3,597 | 3,530 | 3,505 | 3,349 | 2,963 |
| 29 George Mason University | 2,051 | 2,102 | 2,218 | 2,566 | 2,682 | 3,101 | 2,922 | 2,930 |
| 30 Michigan State University | 2,828 | 2,906 | 3,093 | 3,171 | 3,064 | 3,005 | 2,981 | 2,862 |
| Total, 1st 30 institutions | 113,398 | 116,367 | 121,117 | 122,247 | 120,203 | 118,359 | 115,476 | 112,083 |
| 31 University of Arizona | 3,126 | 3,146 | 3,203 | 3,248 | 3,227 | 3,004 | 2,898 | 2,851 |
| 32 New York University | 2,567 | 2,702 | 2,847 | 2,833 | 2,668 | 2,606 | 2,886 | 2,791 |
| 33 University of Kansas | 1,781 | 1,919 | 2,015 | 2,027 | 2,551 | 2,459 | 2,826 | 2,718 |
| 34 University of Pittsburgh | 2,696 | 2,749 | 3,081 | 3,067 | 3,119 | 2,946 | 2,761 | 2,693 |
| 35 University of Massachusetts | 2,617 | 2,629 | 2,626 | 2,675 | 2,758 | 2,757 | 2,697 | 2,671 |
| 36 Iowa State University | 2,707 | 2,768 | 2,817 | 2,876 | 2,799 | 2,676 | 2,693 | 2,608 |
| 37 University of Calif at Davis | 2,699 | 2,563 | 2,584 | 2,554 | 2,495 | 2,425 | 2,473 | 2,529 |
| 38 SUNY at Buffalo | 2,747 | 2,871 | 2,882 | 2,911 | 2,784 | 2,679 | 2,527 | 2,443 |
| 39 Boston University | 2,086 | 2,162 | 2,220 | 2,376 | 2,496 | 2,442 | 2,446 | 2,407 |
| 40 Columbia Univ in the City of New York | 2,382 | 2,413 | 2,448 | 2,397 | 2,411 | 2,309 | 2,442 | 2,385 |
| Total, 1st 40 institutions | 138,806 | 142,289 | 147,840 | 149,211 | 147,511 | 144,662 | 142,125 | 138,179 |
| 41 Wayne State University | 2,592 | 2,653 | 2,786 | 2,925 | 2,910 | 2,694 | 2,420 | 2,385 |
| 42 University of Illinois at Chicago | 2,296 | 2,341 | 2,404 | 2,307 | 2,160 | 2,088 | 2,097 | 2,217 |
| 43 Univ of North Carolina at Chapel Hill | 2,236 | 2,180 | 2,350 | 2,375 | 2,344 | 2,282 | 2,269 | 2,175 |
| 44 Illinois Institute of Technology | 1,776 | 1,818 | 1,916 | 2,079 | 1,913 | 1,542 | 2,138 | 2,058 |
| 45 SUNY at Albany | 1,229 | 1,328 | 1,791 | 1,884 | 1,760 | 1,665 | 2,038 | 2,056 |
| 46 CUNY Graduate School and Univ Center | 1,991 | 1,776 | 1,795 | 1,664 | 1,699 | 1,573 | 1,529 | 2,022 |
| 47 American University | 1,559 | 1,656 | 2,042 | 2,305 | 2,280 | 2,166 | 2,034 | 1,951 |
| 48 University of Cincinnati | 2,084 | 2,223 | 2,161 | 2,175 | 2,233 | 2,267 | 2,183 | 1,945 |
| 49 University of Chicago | 1,998 | 1,859 | 2,075 | 2,046 | 2,153 | 2,070 | 1,954 | 1,941 |
| 50 University of Tennessee at Knoxville | 2,312 | 2,358 | 2,458 | 2,489 | 2,489 | 2,283 | 2,082 | 1,937 |
| Total, 1st 50 institutions | 158,879 | 162,481 | 169,618 | 171,460 | 169,452 | 165,292 | 162,869 | 158,866 |
| 51 University of Pennsylvania | 2,465 | 2,477 | 2,472 | 2,456 | 2,360 | 2,386 | 2,104 | 1,926 |
| 52 Teachers College, Columbia University | 1,441 | 1,528 | 1,533 | 1,629 | 1,661 | 1,741 | 1,842 | 1,906 |
| 53 SUNY at Stony Brook | 1,843 | 1,955 | 2,128 | 2,131 | 2,142 | 2,108 | 1,953 | 1,892 |
| 54 University of Connecticut | 1,980 | 2,024 | 2,186 | 2,218 | 2,102 | 2,081 | 2,004 | 1,881 |
| 55 New Jersey Institute of Technology | 2,283 | 1,848 | 1,820 | 1,742 | 1,664 | 1,711 | 1,705 | 1,874 |
| 56 University of Houston | 2,249 | 2,920 | 2,969 | 2,785 | 1,985 | 1,844 | 1,826 | 1,858 |
| 57 University of Calif at San Diego | 1,680 | 1,804 | 1,795 | 1,798 | 1,781 | 1,814 | 1,812 | 1,846 |
| 58 University of Georgia | 1,501 | 1,598 | 1,702 | 1,781 | 1,855 | 1,837 | 1,798 | 1,818 |
| 59 Colorado State University | 1,649 | 1,793 | 1,882 | 1,973 | 1,956 | 1,927 | 1,751 | 1,770 |
| 60 Carnegie Mellon University | 1,671 | 1,668 | 1,684 | 1,664 | 1,628 | 1,648 | 1,700 | 1,763 |
| Total, 1st 60 institutions | 177,641 | 182,096 | 189,789 | 191,637 | 188,586 | 184,389 | 181,364 | 177,400 |

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

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| Institutional ranking | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| 61 DePaul University | 1,315 | 1,381 | 1,359 | 1,435 | 1,460 | 1,467 | 1,640 | 1,743 |
| 62 Northeastern University | 1,951 | 2,058 | 2,094 | 2,036 | 1,973 | 1,815 | 1,801 | 1,741 |
| 63 Johns Hopkins University | 1,167 | 1,249 | 1,377 | 1,389 | 1,610 | 1,645 | 1,677 | 1,734 |
| 64 Oklahoma State University | 1,704 | 1,794 | 1,823 | 1,773 | 1,747 | 1,785 | 1,719 | 1,718 |
| 65 Nova Southeastern University | 1,034 | 1,140 | 1,237 | 1,503 | 1,778 | 1,808 | 1,712 | 1,710 |
| 66 University of South Florida | 1,490 | 1,526 | 1,710 | 1,844 | 1,743 | 1,744 | 1,699 | 1,700 |
| 67 Kansas State University | 1,495 | 1,540 | 1,618 | 1,732 | 1,781 | 1,777 | 1,709 | 1,679 |
| 68 University of Virginia | 1,830 | 1,874 | 1,915 | 1,923 | 1,878 | 1,798 | 1,731 | 1,669 |
| 69 University of Kentucky | 1,572 | 1,626 | 1,754 | 1,731 | 1,800 | 1,791 | 1,708 | 1,657 |
| 70 Oregon State University | 1,715 | 1,759 | 1,761 | 1,904 | 1,887 | 1,891 | 1,796 | 1,651 |
| Total, 1st 70 institutions | 192,914 | 198,043 | 206,437 | 208,907 | 206,243 | 201,910 | 198,556 | 194,402 |
| 71 University of Nebraska - Lincoln | 1,532 | 1,721 | 1,879 | 1,979 | 1,982 | 1,833 | 1,758 | 1,624 |
| 72 Rensselaer Polytechnic Institute | 1,852 | 2,036 | 2,040 | 2,024 | 1,933 | 1,694 | 1,508 | 1,623 |
| 73 University of New Mexico | 1,591 | 1,625 | 1,674 | 1,862 | 1,817 | 1,819 | 1,735 | 1,607 |
| 74 University of Hawaii at Manoa | 1,626 | 1,719 | 1,667 | 1,747 | 1,843 | 1,763 | 1,734 | 1,598 |
| 75 Clemson University | 1,449 | 1,729 | 1,910 | 1,830 | 1,757 | 1,686 | 1,658 | 1,596 |
| 76 Drexel University | 1,410 | 1,534 | 1,431 | 1,400 | 1,534 | 1,405 | 1,425 | 1,594 |
| 77 University of Utah | 1,602 | 1,627 | 1,701 | 1,695 | 1,684 | 1,814 | 1,690 | 1,586 |
| 78 University of Missouri-Columbia | 1,742 | 1,811 | 1,821 | 1,842 | 1,789 | 1,743 | 1,605 | 1,552 |
| 79 University of Oklahoma | 1,786 | 1,846 | 2,015 | 1,953 | 1,774 | 1,703 | 1,732 | 1,547 |
| 80 Auburn University | 1,595 | 1,732 | 1,772 | 1,887 | 1,854 | 1,849 | 1,687 | 1,529 |
| Total, 1st 80 institutions | 209,099 | 215,423 | 224,347 | 227,126 | 224,210 | 219,219 | 215,088 | 210,258 |
| 81 Northwestern University | 1,738 | 1,800 | 1,843 | 1,799 | 1,719 | 1,645 | 1,638 | 1,516 |
| 82 University of Massachusetts Lowell | 1,841 | 1,796 | 1,764 | 1,552 | 1,679 | 1,783 | 1,646 | 1,515 |
| 83 University of Central Florida | 1,066 | 1,218 | 1,352 | 1,457 | 1,615 | 524 | 1,579 | 1,510 |
| 84 University of Iowa | 1,721 | 1,795 | 1,726 | 1,746 | 1,714 | 1,687 | 1,601 | 1,505 |
| 85 University of Texas at Arlington | 1,743 | 1,865 | 1,936 | 1,945 | 1,810 | 1,609 | 1,554 | 1,463 |
| 86 University of South Carolina | 1,453 | 1,466 | 1,590 | 1,660 | 1,649 | 1,604 | 1,448 | 1,450 |
| 87 Case Western Reserve University | 1,477 | 1,398 | 1,439 | 1,423 | 1,447 | 1,422 | 1,426 | 1,433 |
| 88 Western Michigan University | 1,352 | 1,536 | 1,543 | 1,566 | 1,548 | 1,326 | 1,311 | 1,417 |
| 89 West Virginia University | 1,154 | 1,234 | 1,320 | 1,443 | 1,409 | 1,324 | 1,285 | 1,414 |
| 90 University of Calif at Santa Barbara | 1,475 | 1,482 | 1,526 | 1,394 | 1,439 | 1,444 | 1,439 | 1,412 |
| Total, 1st 90 institutions | 224,119 | 231,013 | 240,386 | 243,111 | 240,239 | 233,587 | 230,015 | 224,893 |
| 91 University of Delaware | 1,291 | 1,396 | 1,429 | 1,497 | 1,505 | 1,493 | 1,409 | 1,377 |
| 92 Polytechnic University | 1,903 | 1,600 | 1,649 | 1,559 | 1,438 | 1,505 | 1,427 | 1,372 |
| 93 University of Akron | 1,315 | 1,314 | 1,348 | 1,321 | 1,320 | 1,344 | 1,369 | 1,361 |
| 94 Syracuse University | 1,913 | 1,928 | 2,042 | 1,823 | 1,817 | 1,518 | 1,516 | 1,341 |
| 95 Duke University | 1,322 | 1,333 | 1,335 | 1,363 | 1,361 | 1,337 | 1,310 | 1,337 |
| 96 University of Wisconsin-Milwaukee | 1,544 | 1,625 | 1,586 | 1,538 | 1,484 | 1,427 | 1,384 | 1,327 |
| 97 Stevens Institute of Technology | 1,333 | 1,313 | 1,335 | 1,416 | 1,360 | 1,305 | 1,390 | 1,326 |
| 98 Yale University | 1,693 | 1,620 | 1,581 | 1,561 | 1,549 | 1,539 | 1,456 | 1,322 |
| 99 Antioch University | 1,146 | 1,531 | 1,617 | 1,532 | 1,590 | 1,474 | 1,430 | 1,320 |
| 100 California State University, Long Beach | 1,860 | 1,940 | 1,883 | 1,682 | 1,486 | 1,428 | 1,383 | 1,317 |
| Total, 1st 100 institutions | 239,439 | 246,613 | 256,191 | 258,403 | 255,149 | 247,957 | 244,089 | 238,293 |
| 101 University of California, Irvine | 1,239 | 1,306 | 1,445 | 1,493 | 1,442 | 1,392 | 1,357 | 1,309 |
| 102 Florida State University | 1,381 | 1,360 | 1,335 | 1,377 | 1,402 | 1,506 | 1,389 | 1,306 |
| 103 University of North Texas | 1,109 | 1,043 | 1,329 | 1,308 | 1,287 | 1,230 | 1,205 | 1,297 |
| 104 Texas Tech University | 1,254 | 1,371 | 1,541 | 1,487 | 1,432 | 1,343 | 1,264 | 1,294 |
| 105 Old Dominion University | 1,036 | 1,100 | 1,077 | 1,244 | 1,232 | 1,237 | 1,248 | 1,274 |
| 106 Southern Methodist University | 901 | 815 | 950 | 997 | 1,031 | 1,131 | 1,222 | 1,260 |
| 107 San Diego State University | 1,316 | 1,371 | 1,499 | 1,544 | 1,473 | 1,148 | 1,277 | 1,246 |
| 108 Princeton University | 1,334 | 1,374 | 1,379 | 1,367 | 1,298 | 1,307 | 1,266 | 1,240 |
| 109 Washington State University | 1,159 | 1,255 | 1,306 | 1,359 | 1,421 | 1,450 | 1,391 | 1,228 |
| 110 Washington University | 1,456 | 1,353 | 1,390 | 1,361 | 1,339 | 1,308 | 1,226 | 1,196 |
| Total, 1st 110 institutions | 251,624 | 258,961 | 269,442 | 271,940 | 268,506 | 261,009 | 256,934 | 250,943 |
| 111 Brigham Young University | 586 | 927 | 1,016 | 1,069 | 1,193 | 1,154 | 1,188 | 1,179 |
| 112 Southern Illinois Univ at Carbondale | 1,326 | 1,365 | 1,305 | 1,326 | 1,304 | 1,282 | 1,213 | 1,154 |
| 113 Mississippi State University | 1,074 | 1,151 | 1,150 | 1,210 | 1,165 | 1,119 | 1,132 | 1,149 |
| 114 University of Idaho | 1,048 | 1,068 | 1,063 | 1,115 | 1,145 | 1,081 | 1,018 | 1,149 |
| 115 Utah State University | 1,170 | 1,187 | 1,272 | 1,363 | 1,370 | 1,337 | 1,229 | 1,143 |
| 116 University of Texas at Dallas | 1,058 | 980 | 1,002 | 1,017 | 946 | 944 | 1,033 | 1,134 |
| 117 Vanderbilt University | 950 | 965 | 970 | 1,026 | 1,117 | 1,137 | 1,154 | 1,129 |
| 118 University of Rochester | 1,325 | 1,349 | 1,361 | 1,372 | 1,305 | 1,226 | 1,146 | 1,097 |
| 119 SUNY at Binghamton | 1,099 | 1,142 | 1,141 | 1,129 | 1,132 | 1,093 | 1,072 | 1,093 |
| 120 New Mexico State University | 883 | 956 | 1,271 | 1,295 | 1,239 | 1,208 | 1,168 | 1,090 |
| Total, 1st 120 institutions | 262,143 | 270,051 | 280,993 | 283,862 | 280,422 | 272,590 | 268,287 | 262,260 |

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

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| Institutional ranking | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| 121 Univ of Puerto Rico Rio Piedras Campus | 1,100 | 1,008 | 1,096 | 1,138 | 1,129 | 1,083 | 1,065 | 1,086 |
| 122 Long Island University | 745 | 862 | 1,112 | 1,142 | 1,041 | 1,137 | 1,089 | 1,069 |
| 123 University of Arkansas Main | 911 | 943 | 1,027 | 1,202 | 1,225 | 1,321 | 1,236 | 1,062 |
| 124 New School for Social Research | 984 | 908 | 1,164 | 1,029 | 1,032 | 1,008 | 1,031 | 1,060 |
| 125 Tufts University | 888 | 927 | 999 | 1,044 | 1,061 | 1,008 | 1,062 | 1,052 |
| 126 Florida International University | 644 | 740 | 783 | 856 | 1,036 | 1,083 | 1,046 | 1,041 |
| 127 University of Alabama, The | 794 | 882 | 934 | 974 | 963 | 985 | 1,070 | 1,040 |
| 128 University of Memphis | 819 | 851 | 832 | 885 | 927 | 873 | 757 | 1,037 |
| 129 Northern Illinois University | 933 | 1,023 | 1,025 | 1,065 | 1,097 | 1,109 | 1,055 | 1,034 |
| 130 Georgia State University | 943 | 950 | 1,025 | 999 | 1,097 | 1,102 | 1,024 | 1,032 |
| Total, 1st 130 institutions | 270,904 | 279,145 | 290,990 | 294,196 | 291,030 | 283,299 | 278,722 | 272,773 |
| 131 California Institute of Technology | 1,088 | 1,125 | 1,152 | 1,131 | 1,087 | 1,073 | 1,022 | 1,031 |
| 132 Lehigh University | 764 | 1,022 | 1,114 | 1,099 | 1,085 | 999 | 1,072 | 1,030 |
| 133 University of Alabama at Birmingham, The | 722 | 759 | 792 | 827 | 815 | 789 | 920 | 1,028 |
| 134 Virginia Commonwealth University | 1,173 | 1,144 | 1,160 | 1,157 | 1,139 | 1,213 | 1,146 | 1,022 |
| 135 University of Miami | 1,062 | 1,150 | 1,189 | 1,196 | 1,252 | 1,172 | 1,095 | 1,012 |
| 136 Portland State University | 832 | 968 | 1,032 | 1,026 | 1,061 | 1,009 | 1,026 | 1,001 |
| 137 Temple University | 1,078 | 1,189 | 1,164 | 1,241 | 1,163 | 1,078 | 1,264 | 979 |
| 138 University of Louisville | 1,049 | 1,084 | 1,132 | 1,122 | 1,125 | 1,099 | 1,095 | 963 |
| 139 Santa Clara University | 1,293 | 1,222 | 1,226 | 1,144 | 952 | 945 | 927 | 956 |
| 140 University of Nevada, Reno | 766 | 825 | 922 | 911 | 956 | 963 | 918 | 956 |
| Total, 1st 140 institutions | 280,731 | 289,633 | 301,873 | 305,050 | 301,665 | 293,639 | 289,207 | 282,751 |
| 141 Fielding Institute, The | 473 | 478 | 475 | 513 | 484 | 899 | 905 | 948 |
| 142 Ohio University | 940 | 959 | 970 | 942 | 927 | 921 | 928 | 940 |
| 143 University of Toledo | 668 | 695 | 742 | 754 | 750 | 818 | 863 | 925 |
| 144 University of Missouri-Rolla | 1,224 | 1,261 | 1,216 | 1,144 | 1,021 | 1,016 | 914 | 886 |
| 145 New York Institute of Technology | 939 | 887 | 1,025 | 997 | 961 | 1,013 | 960 | 872 |
| 146 US Naval Postgraduate School | 1,377 | 1,329 | 1,305 | 1,280 | 1,195 | 1,049 | 927 | 872 |
| 147 Univ of Maryland - Baltimore County | 895 | 1,015 | 1,040 | 1,052 | 1,035 | 1,027 | 964 | 869 |
| 148 Wichita State University | 645 | 643 | 742 | 712 | 705 | 761 | 812 | 865 |
| 149 Florida Atlantic University | 695 | 822 | 940 | 1,006 | 980 | 929 | 895 | 857 |
| 150 Wright State University | 760 | 893 | 909 | 864 | 815 | 845 | 873 | 851 |
| Total, 1st 150 institutions | 289,347 | 298,615 | 311,237 | 314,314 | 310,538 | 302,917 | 298,348 | 291,636 |
| 151 University of Notre Dame | 799 | 804 | 872 | 868 | 855 | 859 | 873 | 846 |
| 152 University of Wyoming | 734 | 820 | 835 | 877 | 877 | 818 | 761 | 846 |
| 153 Oakland University | 616 | 678 | 665 | 700 | 706 | 803 | 819 | 841 |
| 154 Fairleigh Dickinson University | 912 | 1,005 | 1,070 | 1,020 | 849 | 841 | 871 | 836 |
| 155 Loyola University of Chicago | 570 | 610 | 633 | 645 | 701 | 794 | 832 | 831 |
| 156 Kent State University | 778 | 807 | 830 | 806 | 811 | 849 | 799 | 824 |
| 157 University of Rhode Island | 1,100 | 1,095 | 1,149 | 1,148 | 1,129 | 1,096 | 900 | 800 |
| 158 University of Calif at Riverside | 711 | 733 | 757 | 763 | 729 | 795 | 757 | 785 |
| 159 Cleveland State University | 1,044 | 1,142 | 1,141 | 1,160 | 1,151 | 1,122 | 758 | 774 |
| 160 Colorado School of Mines | 679 | 781 | 889 | 869 | 851 | 806 | 778 | 765 |
| Total, 1st 160 institutions | 297,290 | 307,090 | 320,078 | 323,170 | 319,197 | 311,700 | 306,496 | 299,784 |
| 161 University of New Hampshire | 611 | 634 | 669 | 687 | 660 | 689 | 795 | 757 |
| 162 Florida Institute of Technology | 725 | 882 | 904 | 828 | 801 | 754 | 756 | 743 |
| 163 Pepperdine University | 731 | 935 | 1,040 | 1,084 | 1,039 | 943 | 806 | 739 |
| 164 Rice University | 800 | 825 | 852 | 844 | 811 | 752 | 723 | 737 |
| 165 Univ of Puerto Rico Mayaguez Campus | 358 | 439 | 495 | 524 | 520 | 582 | 663 | 727 |
| 166 University of Denver | 937 | 944 | 809 | 831 | 858 | 808 | 768 | 727 |
| 167 Villanova University | 844 | 959 | 938 | 884 | 857 | 758 | 702 | 727 |
| 168 Tulane University | 636 | 751 | 824 | 860 | 897 | 834 | 829 | 726 |
| 169 University of Calif at Santa Cruz | 608 | 628 | 671 | 690 | 717 | 732 | 732 | 726 |
| 170 Calif Sch of Prof Psych - Los Angeles | 585 | 534 | 495 | 537 | 541 | 361 | 280 | 725 |
| Total, 1st 170 institutions | 304,125 | 314,621 | 327,775 | 330,939 | 326,898 | 318,913 | 313,550 | 307,118 |
| 171 Georgetown University | 609 | 633 | 690 | 693 | 744 | 746 | 716 | 722 |
| 172 Brown University | 769 | 781 | 847 | 797 | 766 | 760 | 733 | 717 |
| 173 Claremont Graduate School | 511 | 552 | 573 | 613 | 683 | 659 | 684 | 712 |
| 174 Emory University | 595 | 549 | 595 | 649 | 685 | 719 | 713 | 711 |
| 175 Howard University | 832 | 739 | 657 | 677 | 761 | 741 | 727 | 698 |
| 176 University of Alabama in Huntsville, The | 934 | 1,018 | 939 | 1,012 | 926 | 819 | 706 | 697 |
| 177 University of Oregon | 776 | 822 | 845 | 787 | 778 | 771 | 703 | 675 |
| 178 Calif Sch of Prof Psych - San Diego | 519 | 617 | 592 | 643 | 582 | 573 | 618 | 642 |
| 179 University of Mississippi | 620 | 661 | 661 | 659 | 714 | 700 | 682 | 631 |
| 180 Marquette University | 620 | 620 | 596 | 578 | 600 | 556 | 591 | 626 |
| Total, 1st 180 institutions | 310,910 | 321,613 | 334,770 | 338,047 | 334,137 | 325,957 | 320,423 | 313,949 |

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

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| Institutional ranking | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| 181 Southwest Texas State University | 559 | 600 | 626 | 656 | 689 | 703 | 698 | 624 |
| 182 Worcester Polytechnic Institute | 725 | 865 | 704 | 712 | 711 | 634 | 603 | 596 |
| 183 Yeshiva University | 565 | 607 | 609 | 561 | 571 | 585 | 579 | 594 |
| 184 Univ of Texas Hlth Sci Ctr at Houston | 400 | 428 | 495 | 499 | 541 | 560 | 588 | 584 |
| 185 University of Maine | 660 | 706 | 811 | 783 | 757 | 737 | 666 | 584 |
| 186 University of Southern Mississippi | 480 | 442 | 444 | 462 | 548 | 634 | 604 | 582 |
| 187 University of Texas at El Paso | 624 | 656 | 755 | 667 | 660 | 578 | 588 | 579 |
| 188 Bowling Green State University | 538 | 556 | 591 | 659 | 667 | 708 | 609 | 573 |
| 189 University of Alaska Fairbanks | 487 | 480 | 571 | 603 | 627 | 600 | 587 | 571 |
| 190 Pace University | 885 | 855 | 791 | 845 | 808 | 564 | 829 | 564 |
| Total, 1st 190 institutions | 316,833 | 327,808 | 341,167 | 344,494 | 340,716 | 332,260 | 326,774 | 319,800 |
| 191 Rochester Institute of Technology | 857 | 952 | 1,006 | 896 | 776 | 623 | 621 | 560 |
| 192 University of Montana | 493 | 520 | 588 | 601 | 588 | 593 | 550 | 552 |
| 193 Montana State University-Bozeman | 451 | 482 | 559 | 626 | 605 | 594 | 569 | 551 |
| 194 University of Dayton | 804 | 788 | 739 | 804 | 788 | 651 | 635 | 551 |
| 195 Brandeis University | 416 | 428 | 432 | 465 | 473 | 524 | 565 | 549 |
| 196 Illinois State University | 453 | 505 | 550 | 544 | 514 | 549 | 564 | 547 |
| 197 Seton Hall University | 154 | 396 | 413 | 430 | 394 | 610 | 577 | 546 |
| 198 Marshall University | 177 | 204 | 198 | 204 | 224 | 250 | 264 | 544 |
| 199 Michigan Technological University | 464 | 483 | 510 | 554 | 573 | 584 | 555 | 543 |
| 200 University of Vermont | 594 | 623 | 648 | 632 | 629 | 680 | 570 | 538 |
| Total, 1st 200 institutions | 321,696 | 333,189 | 346,810 | 350,250 | 346,280 | 337,918 | 332,244 | 325,281 |
| 201 North Dakota State University | 549 | 599 | 616 | 590 | 606 | 589 | 584 | 536 |
| 202 Texas Woman's University | 591 | 510 | 518 | 498 | 508 | 503 | 573 | 526 |
| 203 Catholic University of America | 736 | 684 | 736 | 739 | 672 | 602 | 598 | 518 |
| 204 Northern Arizona University | 817 | 783 | 763 | 572 | 587 | 572 | 549 | 517 |
| 205 University of Nebraska - Omaha | 474 | 559 | 630 | 631 | 595 | 535 | 526 | 514 |
| 206 Allegheny Univ. of the Health Sciences | 340 | 387 | 396 | 409 | 422 | 513 | 482 | 510 |
| 207 University of Nevada at Las Vegas | 266 | 357 | 421 | 495 | 531 | 567 | 521 | 510 |
| 208 Air Force Institute of Technology | 653 | 589 | 588 | 550 | 481 | 514 | 533 | 504 |
| 209 Golden Gate University | 354 | 192 | 215 | 157 | 331 | 476 | 381 | 488 |
| 210 Texas A&M University-Kingsville | 262 | 306 | 415 | 456 | 393 | 408 | 378 | 484 |
| Total, 1st 210 institutions | 326,738 | 338,155 | 352,108 | 355,347 | 351,406 | 343,197 | 337,369 | 330,388 |
| 211 Ball State University | 349 | 335 | 395 | 412 | 436 | 442 | 486 | 482 |
| 212 Fordham University | 566 | 598 | 584 | 633 | 559 | 500 | 472 | 471 |
| 213 University of Missouri-Kansas City | 590 | 552 | 543 | 490 | 431 | 512 | 470 | 467 |
| 214 Boston College | 429 | 464 | 472 | 475 | 493 | 480 | 495 | 464 |
| 215 South Dakota State University | 352 | 482 | 485 | 521 | 498 | 499 | 497 | 459 |
| 216 Saint John's University | 429 | 457 | 533 | 558 | 556 | 530 | 469 | 455 |
| 217 University of Detroit Mercy | 529 | 599 | 620 | 596 | 626 | 607 | 484 | 454 |
| 218 University of Southwestern Louisiana | 495 | 562 | 583 | 483 | 466 | 429 | 469 | 438 |
| 219 Miami University (OH) | 441 | 458 | 460 | 507 | 518 | 483 | 425 | 434 |
| 220 Saint Louis University | 381 | 395 | 438 | 453 | 478 | 479 | 475 | 430 |
| Total, 1st 220 institutions | 331,299 | 343,057 | 357,221 | 360,475 | 356,467 | 348,158 | 342,111 | 334,942 |
| 221 Central Michigan University | 257 | 292 | 341 | 324 | 353 | 363 | 422 | 425 |
| 222 Loma Linda University | 92 | 105 | 150 | 138 | 169 | 194 | 278 | 418 |
| 223 US International University | 519 | 492 | 468 | 473 | 419 | 378 | 378 | 409 |
| 224 SUNY College of Env Science and Forestry | 455 | 427 | 457 | 428 | 415 | 410 | 395 | 400 |
| 225 Fuller Theological Seminary | 338 | 343 | 352 | 373 | 381 | 416 | 408 | 396 |
| 226 College of William and Mary | 334 | 371 | 431 | 432 | 436 | 450 | 434 | 394 |
| 227 East Tennessee State University | 253 | 265 | 267 | 311 | 304 | 321 | 325 | 392 |
| 228 University of Missouri-St. Louis | 316 | 281 | 323 | 310 | 425 | 455 | 438 | 392 |
| 229 Tennessee State University | 249 | 226 | 242 | 216 | 327 | 388 | 375 | 382 |
| 230 California Institute of Integral Studies | 250 | 362 | 362 | 447 | 416 | 450 | 487 | 381 |
| Total, 1st 230 institutions | 334,362 | 346,221 | 360,614 | 363,927 | 360,112 | 351,983 | 346,051 | 338,931 |
| 231 Hofstra University | 451 | 402 | 349 | 342 | 356 | 346 | 335 | 371 |
| 232 Indiana State University | 252 | 319 | 307 | 330 | 343 | 345 | 346 | 369 |
| 233 Dartmouth College | 339 | 362 | 381 | 384 | 371 | 363 | 351 | 357 |
| 234 Univ of Texas SW Medical Ctr at Dallas | 268 | 284 | 349 | 361 | 385 | 381 | 379 | 352 |
| 235 Clark Atlanta University | 279 | 323 | 387 | 386 | 418 | 382 | 374 | 347 |
| 236 Calif Sch of Prof Psych - Fresno | 251 | 366 | 385 | 393 | 370 | 399 | 411 | 339 |
| 237 University of South Alabama | 311 | 342 | 362 | 318 | 328 | 326 | 367 | 338 |
| 238 Duquesne University | 227 | 222 | 261 | 280 | 382 | 335 | 393 | 337 |
| 239 University of Maryland at Baltimore | 330 | 355 | 360 | 320 | 324 | 285 | 315 | 333 |
| 240 East Carolina University | 249 | 259 | 343 | 375 | 313 | 333 | 331 | 331 |
| Total, 1st 240 institutions | 337,319 | 349,455 | 364,098 | 367,416 | 363,702 | 355,478 | 349,653 | 342,405 |

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

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| Institutional ranking | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| 241 University of Calif at San Francisco | 288 | 299 | 299 | 315 | 352 | 330 | 338 | 330 |
| 242 Louisiana Tech University | 213 | 284 | 364 | 386 | 345 | 303 | 306 | 327 |
| 243 Jackson State University | 283 | 251 | 263 | 304 | 332 | 328 | 322 | 324 |
| 244 University of North Dakota | 292 | 281 | 324 | 339 | 335 | 333 | 324 | 324 |
| 245 Middle Tennessee State University | 508 | 529 | 580 | 596 | 557 | 435 | 441 | 323 |
| 246 Caribbean Center for Advanced Studies | 216 | 386 | 299 | 181 | 203 | 325 | 320 | 319 |
| 247 Adelphi University | 407 | 380 | 387 | 317 | 271 | 248 | 287 | 318 |
| 248 Indiana University of Pennsylvania | 123 | 140 | 158 | 203 | 301 | 333 | 296 | 317 |
| 249 Sam Houston State University | 343 | 362 | 355 | 375 | 386 | 374 | 369 | 315 |
| 250 Walden University | 0 | 0 | 0 | 0 | 0 | 0 | 223 | 310 |
| Total, 1st 250 institutions | 339,992 | 352,367 | 367,127 | 370,432 | 366,784 | 358,487 | 352,879 | 345,612 |
| 251 Tennessee Technological University | 284 | 323 | 336 | 314 | 319 | 323 | 307 | 308 |
| 252 Baylor College of Medicine | 239 | 246 | 262 | 279 | 273 | 285 | 284 | 302 |
| 253 Oregon Grad Inst of Science & Technology | 188 | 213 | 291 | 320 | 318 | 287 | 205 | 301 |
| 254 University of Tulsa | 260 | 280 | 321 | 339 | 346 | 350 | 310 | 300 |
| 255 Pacific Graduate School of Psychology | 368 | 341 | 373 | 348 | 351 | 314 | 349 | 299 |
| 256 Baylor University | 267 | 284 | 337 | 352 | 363 | 337 | 332 | 298 |
| 257 University of Bridgeport | 326 | 33 | 133 | 148 | 135 | 148 | 172 | 298 |
| 258 Univ of North Carolina at Greensboro | 308 | 303 | 351 | 355 | 370 | 305 | 288 | 295 |
| 259 Lamar University | 287 | 401 | 457 | 397 | 349 | 295 | 290 | 294 |
| 260 Cal Schl of Prof Psych Berkeley/Alameda | 512 | 519 | 528 | 508 | 455 | 428 | 370 | 286 |
| Total, 1st 260 institutions | 343,031 | 355,310 | 370,516 | 373,792 | 370,063 | 361,559 | 355,786 | 348,593 |
| 261 Thomas Jefferson University | 99 | 183 | 212 | 224 | 249 | 297 | 307 | 281 |
| 262 Texas A&M University-Commerce | 363 | 346 | 340 | 303 | 245 | 244 | 244 | 278 |
| 263 Finch U of Hlth Sci/The Chicago Med Sch | 115 | 124 | 130 | 137 | 133 | 269 | 288 | 277 |
| 264 Idaho State University | 291 | 264 | 291 | 364 | 374 | 377 | 325 | 277 |
| 265 Wake Forest University | 215 | 229 | 231 | 245 | 290 | 272 | 276 | 275 |
| 266 Union Institute | 446 | 523 | 381 | 724 | 673 | 512 | 302 | 274 |
| 267 Stephen F. Austin State University | 200 | 201 | 231 | 230 | 260 | 243 | 247 | 271 |
| 268 Clark University | 253 | 275 | 273 | 266 | 261 | 351 | 320 | 269 |
| 269 Alabama A&M University | 240 | 254 | 268 | 312 | 272 | 202 | 194 | 250 |
| 270 University of Hartford | 207 | 235 | 239 | 288 | 271 | 272 | 288 | 249 |
| Total, 1st 270 institutions | 345,460 | 357,944 | 373,112 | 376,885 | 373,091 | 364,598 | 358,577 | 351,294 |
| 271 Wright Institute, The | 207 | 199 | 208 | 221 | 242 | 253 | 248 | 245 |
| 272 Florida A&M University | 102 | 133 | 130 | 177 | 229 | 268 | 251 | 243 |
| 273 Medical University of South Carolina | 146 | 154 | 173 | 192 | 193 | 237 | 238 | 235 |
| 274 New Mexico Institute of Mining and Tech | 245 | 253 | 260 | 255 | 232 | 222 | 233 | 224 |
| 275 Clarkson University | 312 | 286 | 279 | 287 | 254 | 239 | 226 | 216 |
| 276 University of South Dakota | 221 | 202 | 219 | 207 | 207 | 221 | 225 | 209 |
| 277 University of La Verne | 141 | 125 | 176 | 202 | 118 | 154 | 130 | 204 |
| 278 Univ of Med and Dentistry of New Jersey | 217 | 239 | 188 | 204 | 225 | 206 | 197 | 198 |
| 279 Univ of Texas Hlth Sci Ctr San Antonio | 130 | 133 | 157 | 163 | 168 | 169 | 182 | 189 |
| 280 New York Medical College | 107 | 160 | 179 | 199 | 241 | 239 | 238 | 188 |
| Total, 1st 280 institutions | 347,288 | 359,828 | 375,081 | 378,992 | 375,200 | 366,806 | 360,745 | 353,445 |
| 281 CUNY Hunter College | 462 | 419 | 414 | 383 | 378 | 374 | 203 | 186 |
| 282 American International College | 170 | 164 | 169 | 123 | 123 | 124 | 122 | 184 |
| 283 CUNY Mt. Sinai School of Medicine | 146 | 164 | 156 | 170 | 169 | 174 | 178 | 183 |
| 284 Chicago School of Prof Psych | 158 | 134 | 139 | 148 | 159 | 169 | 180 | 183 |
| 285 South Dakota School of Mines and Tech | 259 | 274 | 248 | 219 | 194 | 208 | 196 | 183 |
| 286 Forest Institute of Professional Psych | 256 | 206 | 185 | 169 | 162 | 148 | 166 | 181 |
| 287 Northeast Louisiana University | 104 | 101 | 108 | 118 | 147 | 119 | 172 | 181 |
| 288 University of Northern Colorado | 190 | 182 | 224 | 231 | 216 | 166 | 180 | 181 |
| 289 Biola University | 190 | 188 | 156 | 155 | 149 | 146 | 174 | 167 |
| 290 Mercer University | 84 | 113 | 154 | 147 | 147 | 154 | 147 | 167 |
| Total, 1st 290 institutions | 349,307 | 361,773 | 377,034 | 380,855 | 377,044 | 368,588 | 362,463 | 355,241 |
| 291 James Madison University | 102 | 108 | 113 | 120 | 97 | 103 | 104 | 166 |
| 292 Univ of Texas Med Branch at Galveston | 97 | 128 | 139 | 145 | 158 | 152 | 140 | 160 |
| 293 University of Tennessee, Memphis | 110 | 112 | 131 | 150 | 157 | 156 | 134 | 158 |
| 294 Philadelphia Col of Osteopathic Med | 0 | 0 | 0 | 0 | 0 | 85 | 120 | 157 |
| 295 University of Northern Iowa | 63 | 77 | 74 | 92 | 154 | 173 | 168 | 155 |
| 296 Medical College of Wisconsin | 91 | 107 | 120 | 119 | 126 | 125 | 117 | 144 |
| 297 Mayo Graduate School | 84 | 104 | 116 | 120 | 114 | 136 | 133 | 141 |
| 298 Eastern Virginia Medical School | 111 | 118 | 126 | 138 | 156 | 155 | 136 | 139 |
| 299 Spalding University | 112 | 107 | 112 | 91 | 115 | 117 | 125 | 137 |
| 300 Woods Hole Oceanographic Institution | 92 | 102 | 113 | 112 | 120 | 115 | 137 | 137 |
| Total, 1st 300 institutions | 350,169 | 362,736 | 378,078 | 381,942 | 378,241 | 369,905 | 363,777 | 356,735 |

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

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| Institutional ranking | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| 301 Texas Christian University | 131 | 124 | 140 | 149 | 146 | 153 | 142 | 136 |
| 302 Meharry Medical College | 47 | 54 | 60 | 69 | 144 | 140 | 139 | 131 |
| 303 University of Arkansas - Med Sci Campus | 49 | 61 | 75 | 104 | 113 | 124 | 138 | 131 |
| 304 Alfred University | 139 | 115 | 124 | 144 | 174 | 154 | 170 | 129 |
| 305 Oregon Health Sciences University | 102 | 118 | 120 | 126 | 138 | 143 | 135 | 123 |
| 306 Wesleyan University | 121 | 128 | 132 | 139 | 143 | 120 | 120 | 119 |
| 307 University of Maryland Eastern Shore | 82 | 104 | 115 | 90 | 104 | 89 | 98 | 113 |
| 308 Medical College of Ohio | 0 | 0 | 0 | 52 | 227 | 148 | 155 | 112 |
| 309 Andrews University | 124 | 131 | 163 | 157 | 139 | 133 | 144 | 111 |
| 310 Bryn Mawr College | 114 | 154 | 123 | 120 | 111 | 115 | 114 | 108 |
| Total, 1st 310 institutions | 351,078 | 363,725 | 379,130 | 383,092 | 379,680 | 371,224 | 365,132 | 357,948 |
| 311 Widener University | 150 | 133 | 143 | 148 | 152 | 145 | 132 | 106 |
| 312 The Rockefeller University | 128 | 128 | 134 | 136 | 132 | 125 | 93 | 105 |
| 313 Medical College of Georgia | 78 | 82 | 84 | 88 | 96 | 93 | 100 | 101 |
| 314 Albany Medical College | 70 | 70 | 88 | 96 | 95 | 102 | 93 | 96 |
| 315 University of Puerto Rico Med Sci Campus | 77 | 113 | 89 | 132 | 128 | 144 | 135 | 96 |
| 316 Creighton University | 76 | 71 | 77 | 93 | 53 | 120 | 129 | 93 |
| 317 University of Nebraska Medical Center | 67 | 60 | 69 | 76 | 81 | 84 | 87 | 86 |
| 318 SUNY Health Science Center at Brooklyn | 94 | 98 | 119 | 104 | 94 | 82 | 76 | 78 |
| 319 Hampton University | 58 | 64 | 83 | 90 | 129 | 123 | 98 | 76 |
| 320 Rush University | 95 | 90 | 98 | 103 | 100 | 100 | 77 | 75 |
| Total, 1st 320 institutions | 351,971 | 364,634 | 380,114 | 384,158 | 380,740 | 372,342 | 366,152 | 358,860 |
| 321 Institute of Paper Science & Technology | 57 | 70 | 73 | 77 | 79 | 83 | 76 | 68 |
| 322 SUNY Health Science Center at Syracuse | 50 | 68 | 64 | 72 | 71 | 65 | 68 | 68 |
| 323 Uniformed Serv Univ of the Hlth Sciences | 92 | 88 | 71 | 66 | 57 | 58 | 55 | 63 |
| 324 CUNY Herbert H. Lehman College | 78 | 61 | 53 | 65 | 72 | 41 | 70 | 52 |
| 325 University of San Diego | 52 | 42 | 38 | 47 | 58 | 56 | 51 | 51 |
| 326 University of the Pacific | 46 | 59 | 51 | 48 | 54 | 51 | 55 | 50 |
| 327 RAND Graduate School of Policy Studies | 48 | 60 | 55 | 61 | 55 | 56 | 52 | 49 |
| 328 Maharishi University of Management | 77 | 76 | 64 | 51 | 48 | 33 | 35 | 48 |
| 329 Union College | 135 | 144 | 137 | 124 | 98 | 73 | 59 | 37 |
| 330 Institute of Textile Technology | 30 | 30 | 28 | 34 | 29 | 25 | 27 | 28 |
| Total, 1st 330 institutions | 352,636 | 365,332 | 380,748 | 384,803 | 381,361 | 372,883 | 366,700 | 359,374 |
| 331 Mass College of Pharmacy/Allied Health | 25 | 24 | 24 | 20 | 20 | 20 | 20 | 23 |
| 332 Philadelphia Coll of Pharmacy and Sci | 31 | 29 | 31 | 33 | 29 | 30 | 26 | 21 |
| 333 Ponce School of Medicine | 19 | 15 | 13 | 14 | 12 | 16 | 13 | 17 |
| 334 Morehouse School of Medicine | 0 | 0 | 4 | 9 | 21 | 12 | 22 | 16 |
| 335 The Pontifical Cath Univ of Puerto Rico | 0 | 0 | 0 | 15 | 20 | 20 | 10 | 11 |
| 336 Baylor College of Dentistry | 3 | 6 | 7 | 9 | 7 | 9 | 7 | 7 |
| 337 Smith College | 5 | 6 | 8 | 7 | 4 | 4 | 7 | 7 |
| 338 Atlanta University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 339 Charles R. Drew Univ of Medicine & Sci | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 340 Emerson College | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total, 1st 340 institutions | 352,719 | 365,412 | 380,835 | 384,910 | 381,474 | 372,994 | 366,805 | 359,476 |
| 341 Kirksville College of Osteopathic Med | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 342 Medical College of Pennsylvania, The | 72 | 78 | 85 | 73 | 80 | 0 | 0 | 0 |
| 343 Midwestern University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 344 Oral Roberts University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 345 Pacific University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 346 SUNY College of Optometry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 347 U of North TX Hlth Sci Ctr at Ft Worth | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 348 Univ of Osteopathic Med & Health Sci | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 349 Univ of Texas M.D. Anderson Cancer Ctr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350 University of New England | 13 | 9 | 3 | 3 | 0 | 0 | 0 | 0 |
| Total, 1st 350 institutions | 352,804 | 365,499 | 380,923 | 384,986 | 381,554 | 372,994 | 366,805 | 359,476 |
| 351 Xavier University of Louisiana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total, 1st 351 institutions | 352,804 | 365,499 | 380,923 | 384,986 | 381,554 | 372,994 | 366,805 | 359,476 |

NOTES: Includes medical schools

For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 46. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions,
by detailed field: 1990-97**

Page 1 of 1

| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, all surveyed fields | 29,519 | 30,806 | 32,680 | 34,254 | 36,289 | 35,828 | 37,028 | 37,928 |
| Total, science and engineering fields | 21,773 | 22,813 | 23,829 | 24,605 | 25,734 | 26,087 | 26,513 | 26,806 |
| Sciences, total | 19,834 | 20,570 | 21,478 | 22,171 | 23,144 | 23,459 | 23,851 | 23,868 |
| Physical sciences, total | 5,566 | 5,691 | 5,758 | 5,640 | 5,849 | 5,829 | 5,803 | 5,836 |
| Astronomy | 184 | 210 | 206 | 219 | 246 | 276 | 312 | 317 |
| Chemistry | 3,630 | 3,647 | 3,564 | 3,555 | 3,710 | 3,637 | 3,568 | 3,692 |
| Physics | 1,724 | 1,814 | 1,949 | 1,827 | 1,849 | 1,820 | 1,837 | 1,728 |
| Physical sciences, n.e.c. | 28 | 20 | 39 | 39 | 44 | 96 | 86 | 99 |
| Earth, atmos., & ocean sci., total | 591 | 623 | 690 | 762 | 815 | 845 | 859 | 934 |
| Atmospheric sciences | 57 | 59 | 64 | 81 | 89 | 88 | 80 | 98 |
| Geosciences | 343 | 369 | 399 | 423 | 435 | 440 | 449 | 486 |
| Oceanography | 170 | 161 | 186 | 204 | 237 | 258 | 244 | 258 |
| Earth, atmos., & ocean sci., n.e.c. | 21 | 34 | 41 | 54 | 54 | 59 | 86 | 92 |
| Mathematical sciences | 248 | 206 | 201 | 224 | 239 | 259 | 326 | 303 |
| Computer sciences | 71 | 120 | 144 | 164 | 183 | 213 | 247 | 315 |
| Agricultural sciences | 524 | 565 | 630 | 698 | 705 | 688 | 665 | 692 |
| Biological sciences, total | 11,932 | 12,479 | 13,172 | 13,785 | 14,417 | 14,672 | 14,918 | 14,872 |
| Anatomy | 463 | 509 | 496 | 462 | 503 | 506 | 537 | 578 |
| Biochemistry | 2,174 | 2,120 | 2,157 | 2,368 | 2,379 | 2,409 | 2,466 | 2,532 |
| Biology | 1,360 | 1,398 | 1,475 | 1,460 | 1,576 | 1,601 | 1,633 | 1,537 |
| Biometry/epidemiology | 97 | 100 | 122 | 131 | 128 | 153 | 153 | 159 |
| Biophysics | 118 | 156 | 176 | 176 | 184 | 230 | 252 | 240 |
| Botany | 449 | 488 | 492 | 511 | 590 | 630 | 599 | 596 |
| Cell biology | 1,258 | 1,264 | 1,308 | 1,441 | 1,649 | 1,764 | 1,725 | 1,717 |
| Ecology | 57 | 49 | 60 | 65 | 88 | 95 | 107 | 131 |
| Entomology/parasitology | 212 | 236 | 223 | 223 | 190 | 179 | 183 | 216 |
| Genetics | 614 | 625 | 671 | 665 | 661 | 752 | 719 | 715 |
| Microbio., immunology, & virology | 1,469 | 1,715 | 1,784 | 1,881 | 1,924 | 1,943 | 1,975 | 2,005 |
| Nutrition | 131 | 171 | 196 | 210 | 192 | 186 | 198 | 209 |
| Pathology | 1,018 | 1,075 | 1,170 | 1,202 | 1,256 | 1,188 | 1,220 | 1,360 |
| Pharmacology | 1,104 | 1,153 | 1,286 | 1,327 | 1,375 | 1,401 | 1,418 | 1,322 |
| Physiology | 1,043 | 1,060 | 1,139 | 1,150 | 1,109 | 1,026 | 1,089 | 1,096 |
| Zoology | 162 | 161 | 165 | 174 | 171 | 164 | 135 | 108 |
| Biosciences, n.e.c. | 203 | 199 | 252 | 339 | 442 | 445 | 509 | 351 |
| Psychology | 464 | 507 | 523 | 520 | 546 | 577 | 589 | 560 |
| Social sciences, total | 438 | 379 | 360 | 378 | 390 | 376 | 444 | 356 |
| Agricultural economics | 57 | 39 | 49 | 46 | 45 | 39 | 56 | 50 |
| Anthropology (cultural & social) | 64 | 51 | 59 | 52 | 57 | 67 | 74 | 59 |
| Economics (except agricultural) | 37 | 40 | 22 | 38 | 46 | 27 | 16 | 19 |
| Geography | 19 | 15 | 22 | 28 | 26 | 16 | 22 | 12 |
| Linguistics | 38 | 14 | 26 | 29 | 20 | 16 | 36 | 19 |
| Political science | 66 | 78 | 49 | 35 | 44 | 36 | 35 | 31 |
| Sociology | 94 | 90 | 72 | 72 | 78 | 91 | 127 | 102 |
| Sociology/anthropology | 2 | 1 | 3 | 5 | 4 | 0 | 0 | 0 |
| Social sciences, other | 61 | 51 | 58 | 73 | 70 | 84 | 78 | 64 |
| Engineering, total | 1,939 | 2,243 | 2,351 | 2,434 | 2,590 | 2,628 | 2,662 | 2,938 |
| Aerospace engineering | 67 | 77 | 92 | 116 | 100 | 101 | 109 | 125 |
| Agricultural engineering | 33 | 35 | 37 | 39 | 45 | 46 | 48 | 58 |
| Biomedical engineering | 72 | 61 | 81 | 85 | 141 | 134 | 143 | 158 |
| Chemical engineering | 550 | 568 | 535 | 526 | 521 | 569 | 541 | 626 |
| Civil engineering | 168 | 185 | 187 | 181 | 210 | 200 | 230 | 234 |
| Electrical engineering | 241 | 339 | 313 | 383 | 407 | 378 | 393 | 505 |
| Engineering science | 76 | 117 | 71 | 78 | 95 | 101 | 93 | 115 |
| Industrial/manufacturing eng. | 6 | 27 | 38 | 63 | 53 | 29 | 28 | 27 |
| Mechanical engineering | 220 | 324 | 349 | 355 | 383 | 402 | 417 | 436 |
| Metallurgical/materials eng. | 363 | 392 | 450 | 403 | 441 | 490 | 496 | 464 |
| Nuclear engineering | 30 | 29 | 34 | 40 | 39 | 28 | 28 | 33 |
| Engineering, other | 113 | 89 | 164 | 165 | 155 | 150 | 136 | 157 |
| Total, health fields | 7,746 | 7,993 | 8,851 | 9,649 | 10,555 | 9,741 | 10,515 | 11,122 |
| Clinical fields | 6,184 | 6,366 | 7,065 | 7,614 | 8,329 | 7,428 | 8,019 | 8,489 |
| Dental sciences | 53 | 77 | 75 | 102 | 195 | 227 | 172 | 173 |
| Nursing | 23 | 28 | 28 | 40 | 48 | 43 | 23 | 34 |
| Pharmaceutical sciences | 487 | 475 | 486 | 534 | 575 | 504 | 509 | 483 |
| Preventive medicine/community health | 218 | 204 | 231 | 248 | 264 | 291 | 307 | 348 |
| Speech pathology/audiology | 28 | 41 | 47 | 49 | 40 | 53 | 46 | 36 |
| Veterinary sciences | 102 | 119 | 117 | 133 | 138 | 159 | 190 | 217 |
| Other health fields | 651 | 683 | 802 | 929 | 966 | 1,036 | 1,249 | 1,342 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field and source of support, and number of postdoctoral appointees without U.S. citizenship: 1997

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| Field | Total | Source of support | | | | Number of post-doctoral appointees without U.S. citizenship | |
|---|--------|-------------------|-------------|---------------|-------------|---|--------|
| | | Federal | | | Non-Federal | | |
| | | Total | Fellowships | Trainee-ships | | | |
| Total, all surveyed fields | 37,928 | 25,778 | 3,407 | 2,726 | 19,645 | 12,150 | 19,288 |
| Total, science and engineering fields | 26,806 | 19,417 | 2,198 | 1,196 | 16,023 | 7,389 | 14,221 |
| Sciences, total | 23,868 | 17,385 | 2,045 | 1,177 | 14,163 | 6,483 | 12,357 |
| Physical sciences, total | 5,836 | 4,565 | 378 | 39 | 4,148 | 1,271 | 3,386 |
| Astronomy | 317 | 292 | 37 | 2 | 253 | 25 | 114 |
| Chemistry | 3,692 | 2,768 | 293 | 33 | 2,442 | 924 | 2,225 |
| Physics | 1,728 | 1,410 | 48 | 4 | 1,358 | 318 | 994 |
| Physical sciences, n.e.c. | 99 | 95 | 0 | 0 | 95 | 4 | 53 |
| Earth, atmos., & ocean sci., total | 934 | 726 | 61 | 6 | 659 | 208 | 367 |
| Atmospheric sciences | 98 | 89 | 0 | 0 | 89 | 9 | 35 |
| Geosciences | 486 | 352 | 31 | 0 | 321 | 134 | 192 |
| Oceanography | 258 | 205 | 29 | 6 | 170 | 53 | 105 |
| Earth, atmos., & ocean sci., n.e.c. | 92 | 80 | 1 | 0 | 79 | 12 | 35 |
| Mathematical sciences | 303 | 197 | 48 | 2 | 147 | 106 | 168 |
| Computer sciences | 315 | 226 | 21 | 0 | 205 | 89 | 172 |
| Agricultural sciences | 692 | 383 | 23 | 1 | 359 | 309 | 341 |
| Biological sciences, total | 14,872 | 10,731 | 1,407 | 981 | 8,343 | 4,141 | 7,690 |
| Anatomy | 578 | 458 | 54 | 47 | 357 | 120 | 310 |
| Biochemistry | 2,532 | 1,975 | 224 | 101 | 1,650 | 557 | 1,367 |
| Biology | 1,537 | 1,142 | 204 | 61 | 877 | 395 | 734 |
| Biometry/epidemiology | 159 | 133 | 33 | 62 | 38 | 26 | 45 |
| Biophysics | 240 | 174 | 22 | 12 | 140 | 66 | 101 |
| Botany | 596 | 410 | 44 | 1 | 365 | 186 | 325 |
| Cell biology | 1,717 | 1,081 | 193 | 42 | 846 | 636 | 868 |
| Ecology | 131 | 87 | 14 | 0 | 73 | 44 | 32 |
| Entomology/parasitology | 216 | 151 | 4 | 3 | 144 | 65 | 101 |
| Genetics | 715 | 457 | 83 | 52 | 322 | 258 | 372 |
| Microbio., immunology, & virology | 2,005 | 1,441 | 165 | 144 | 1,132 | 564 | 1,052 |
| Nutrition | 209 | 137 | 7 | 11 | 119 | 72 | 120 |
| Pathology | 1,360 | 932 | 90 | 177 | 665 | 428 | 757 |
| Pharmacology | 1,322 | 1,010 | 131 | 137 | 742 | 312 | 721 |
| Physiology | 1,096 | 823 | 97 | 101 | 625 | 273 | 594 |
| Zoology | 108 | 72 | 9 | 2 | 61 | 36 | 34 |
| Biosciences, n.e.c. | 351 | 248 | 33 | 28 | 187 | 103 | 157 |
| Psychology | 560 | 396 | 65 | 114 | 217 | 164 | 128 |
| Social sciences, total | 356 | 161 | 42 | 34 | 85 | 195 | 105 |
| Agricultural economics | 50 | 32 | 0 | 0 | 32 | 18 | 23 |
| Anthropology (cultural & social) | 59 | 21 | 8 | 0 | 13 | 38 | 14 |
| Economics (except agricultural) | 19 | 0 | 0 | 0 | 0 | 19 | 4 |
| Geography | 12 | 6 | 0 | 0 | 6 | 6 | 8 |
| Linguistics | 19 | 5 | 0 | 3 | 2 | 14 | 4 |
| Political science | 31 | 4 | 1 | 0 | 3 | 27 | 8 |
| Sociology | 102 | 68 | 23 | 27 | 18 | 34 | 17 |
| Sociology/anthropology | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Social sciences, other | 64 | 25 | 10 | 4 | 11 | 39 | 27 |
| Engineering, total | 2,938 | 2,032 | 153 | 19 | 1,860 | 906 | 1,864 |
| Aerospace engineering | 125 | 112 | 2 | 0 | 110 | 13 | 80 |
| Agricultural engineering | 58 | 24 | 0 | 0 | 24 | 34 | 38 |
| Biomedical engineering | 158 | 115 | 15 | 10 | 90 | 43 | 72 |
| Chemical engineering | 626 | 405 | 43 | 1 | 361 | 221 | 377 |
| Civil engineering | 234 | 130 | 6 | 0 | 124 | 104 | 148 |
| Electrical engineering | 505 | 346 | 36 | 0 | 310 | 159 | 343 |
| Engineering science | 115 | 103 | 10 | 0 | 93 | 12 | 55 |
| Industrial eng./manufacturing eng. | 27 | 16 | 1 | 0 | 15 | 11 | 15 |
| Mechanical engineering | 436 | 320 | 17 | 2 | 301 | 116 | 292 |
| Metallurgical/materials eng. | 464 | 320 | 20 | 3 | 297 | 144 | 322 |
| Nuclear engineering | 33 | 24 | 0 | 0 | 24 | 9 | 15 |
| Engineering, other | 157 | 117 | 3 | 3 | 111 | 40 | 107 |

See explanatory information, if any, and SOURCE at end of table.

**Table 47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions,
by detailed field and source of support, and number of postdoctoral appointees without
U.S. citizenship: 1997**

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| Field | Total | Source of support | | | | | Number of post-doctoral appointees without U.S. citizenship | |
|--|--------|-------------------|-------------|---------------|-----------------|-------------|---|--|
| | | Federal | | | | Non-Federal | | |
| | | Total | Fellowships | Trainee-ships | Research grants | | | |
| Total, health fields | 11,122 | 6,361 | 1,209 | 1,530 | 3,622 | 4,761 | 5,067 | |
| Clinical fields | 8,489 | 4,736 | 978 | 1,241 | 2,517 | 3,753 | 3,909 | |
| Dental sciences | 173 | 115 | 27 | 38 | 50 | 58 | 64 | |
| Nursing | 34 | 30 | 11 | 13 | 6 | 4 | 1 | |
| Pharmaceutical sciences | 483 | 313 | 22 | 8 | 283 | 170 | 288 | |
| Preventive medicine/community health | 348 | 248 | 28 | 59 | 161 | 100 | 112 | |
| Speech pathology/audiology | 36 | 33 | 1 | 8 | 24 | 3 | 10 | |
| Veterinary sciences | 217 | 108 | 14 | 12 | 82 | 109 | 75 | |
| Other health fields | 1,342 | 778 | 128 | 151 | 499 | 564 | 608 | |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 48. Nonfaculty research scientists, engineers, and health professionals with doctorates in doctorate-granting institutions, by detailed field: 1990-97

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Total, all surveyed fields | 5,234 | 5,457 | 5,464 | 5,993 | 6,208 | 6,517 | 6,594 | 6,674 |
| Total, science and engineering fields | 4,337 | 4,517 | 4,381 | 4,800 | 4,988 | 5,176 | 5,150 | 5,212 |
| Sciences, total | 3,731 | 3,858 | 3,644 | 3,997 | 4,163 | 4,387 | 4,420 | 4,362 |
| Physical sciences, total | 1,001 | 1,000 | 1,066 | 1,223 | 1,244 | 1,374 | 1,288 | 1,205 |
| Astronomy | 87 | 66 | 70 | 100 | 151 | 158 | 154 | 144 |
| Chemistry | 449 | 474 | 472 | 538 | 522 | 538 | 548 | 505 |
| Physics | 461 | 459 | 523 | 584 | 569 | 658 | 568 | 554 |
| Physical sciences, n.e.c. | 4 | 1 | 1 | 1 | 2 | 20 | 18 | 2 |
| Earth, atmos., & ocean sci., total | 314 | 298 | 302 | 340 | 363 | 418 | 430 | 428 |
| Atmospheric sciences | 19 | 26 | 21 | 40 | 27 | 21 | 46 | 76 |
| Geosciences | 135 | 129 | 153 | 138 | 198 | 218 | 190 | 148 |
| Oceanography | 137 | 137 | 114 | 132 | 118 | 152 | 167 | 163 |
| Earth, atmos., & ocean sci., n.e.c. | 23 | 6 | 14 | 30 | 20 | 27 | 27 | 41 |
| Mathematical sciences | 90 | 84 | 70 | 52 | 72 | 93 | 88 | 92 |
| Computer sciences | 61 | 50 | 42 | 67 | 48 | 66 | 107 | 87 |
| Agricultural sciences | 182 | 197 | 189 | 170 | 251 | 228 | 209 | 203 |
| Biological sciences, total | 1,747 | 1,857 | 1,691 | 1,844 | 1,854 | 1,958 | 1,904 | 1,970 |
| Anatomy | 65 | 50 | 39 | 52 | 39 | 48 | 59 | 58 |
| Biochemistry | 329 | 351 | 284 | 294 | 270 | 337 | 322 | 330 |
| Biology | 275 | 250 | 265 | 324 | 325 | 324 | 315 | 294 |
| Biometry/epidemiology | 21 | 33 | 26 | 36 | 37 | 32 | 26 | 24 |
| Biophysics | 31 | 36 | 38 | 49 | 54 | 58 | 44 | 54 |
| Botany | 76 | 122 | 79 | 97 | 86 | 88 | 66 | 62 |
| Cell biology | 122 | 147 | 158 | 201 | 176 | 210 | 194 | 195 |
| Ecology | 13 | 26 | 19 | 21 | 14 | 21 | 18 | 20 |
| Entomology/parasitology | 86 | 78 | 64 | 74 | 59 | 60 | 51 | 55 |
| Genetics | 58 | 70 | 53 | 67 | 63 | 65 | 79 | 121 |
| Microbio., immunology, & virology | 166 | 150 | 159 | 155 | 206 | 187 | 195 | 231 |
| Nutrition | 77 | 86 | 60 | 56 | 81 | 63 | 56 | 54 |
| Pathology | 113 | 102 | 123 | 114 | 145 | 132 | 136 | 114 |
| Pharmacology | 134 | 150 | 116 | 142 | 128 | 169 | 164 | 151 |
| Physiology | 122 | 143 | 136 | 99 | 103 | 115 | 119 | 147 |
| Zoology | 40 | 40 | 30 | 20 | 29 | 16 | 13 | 15 |
| Biosciences, n.e.c. | 19 | 23 | 42 | 43 | 39 | 33 | 47 | 45 |
| Psychology | 198 | 192 | 152 | 171 | 203 | 146 | 232 | 199 |
| Social sciences, total | 138 | 180 | 132 | 130 | 128 | 104 | 162 | 178 |
| Agricultural economics | 17 | 13 | 12 | 14 | 15 | 12 | 17 | 27 |
| Anthropology (cultural & social) | 46 | 57 | 35 | 43 | 48 | 34 | 34 | 13 |
| Economics (except agricultural) | 8 | 6 | 6 | 3 | 3 | 9 | 16 | 6 |
| Geography | 4 | 4 | 6 | 6 | 9 | 4 | 11 | 17 |
| Linguistics | 25 | 49 | 9 | 5 | 8 | 2 | 4 | 11 |
| Political science | 5 | 3 | 7 | 3 | 2 | 6 | 15 | 10 |
| Sociology | 23 | 26 | 24 | 16 | 9 | 11 | 15 | 34 |
| Sociology/anthropology | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 |
| Social sciences, other | 10 | 22 | 33 | 40 | 34 | 26 | 47 | 55 |
| Engineering, total | 606 | 659 | 737 | 803 | 825 | 789 | 730 | 850 |
| Aerospace engineering | 24 | 26 | 39 | 69 | 66 | 80 | 86 | 84 |
| Agricultural engineering | 13 | 12 | 10 | 5 | 23 | 27 | 15 | 19 |
| Biomedical engineering | 12 | 16 | 26 | 26 | 36 | 26 | 21 | 31 |
| Chemical engineering | 77 | 61 | 148 | 126 | 87 | 70 | 82 | 160 |
| Civil engineering | 51 | 54 | 52 | 67 | 54 | 66 | 69 | 66 |
| Electrical engineering | 103 | 121 | 123 | 135 | 159 | 175 | 144 | 168 |
| Engineering science | 17 | 16 | 16 | 34 | 30 | 37 | 38 | 50 |
| Industrial/manufacturing eng. | 21 | 20 | 17 | 7 | 6 | 3 | 2 | 7 |
| Mechanical engineering | 125 | 113 | 97 | 116 | 135 | 108 | 108 | 109 |
| Metallurgical/materials eng. | 103 | 147 | 131 | 142 | 139 | 120 | 95 | 84 |
| Nuclear engineering | 36 | 34 | 37 | 27 | 36 | 32 | 29 | 28 |
| Engineering, other | 24 | 39 | 41 | 49 | 54 | 45 | 41 | 44 |
| Total, health fields | 897 | 940 | 1,083 | 1,193 | 1,220 | 1,341 | 1,444 | 1,462 |
| Clinical fields | 625 | 646 | 717 | 718 | 786 | 898 | 947 | 972 |
| Dental sciences | 8 | 16 | 20 | 27 | 11 | 12 | 14 | 52 |
| Nursing | 10 | 2 | 9 | 5 | 8 | 7 | 15 | 16 |
| Pharmaceutical sciences | 32 | 83 | 81 | 115 | 101 | 118 | 99 | 97 |
| Preventive medicine/community health | 69 | 55 | 65 | 95 | 105 | 90 | 118 | 79 |
| Speech pathology/audiology | 20 | 7 | 7 | 13 | 12 | 20 | 14 | 13 |
| Veterinary sciences | 34 | 30 | 47 | 45 | 58 | 53 | 67 | 61 |
| Other health fields | 99 | 101 | 137 | 175 | 139 | 143 | 170 | 172 |

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 49. Graduate students in science, engineering, and health fields in historically black colleges and universities, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|---|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, all surveyed fields | 5,509 | 3,636 | 8 | 252 | 55 | 868 | 167 | 523 |
| Total, science and engineering fields | 4,796 | 3,279 | 4 | 244 | 43 | 567 | 155 | 504 |
| Sciences, total | 4,265 | 2,995 | 4 | 214 | 34 | 513 | 130 | 375 |
| Physical sciences, total | 447 | 286 | 0 | 39 | 5 | 14 | 27 | 76 |
| Astronomy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chemistry | 266 | 167 | 0 | 12 | 4 | 4 | 14 | 65 |
| Physics | 168 | 107 | 0 | 26 | 1 | 10 | 13 | 11 |
| Physical sciences, n.e.c. | 13 | 12 | 0 | 1 | 0 | 0 | 0 | 0 |
| Earth, atmos., & ocean sci., total | 88 | 43 | 1 | 2 | 2 | 32 | 5 | 3 |
| Atmospheric sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Geosciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oceanography | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Earth, atmos., & ocean sci., n.e.c. | 88 | 43 | 1 | 2 | 2 | 32 | 5 | 3 |
| Mathematical sciences | 172 | 128 | 0 | 8 | 1 | 19 | 2 | 14 |
| Computer sciences | 446 | 219 | 1 | 112 | 0 | 26 | 25 | 63 |
| Agricultural sciences | 140 | 88 | 0 | 11 | 3 | 14 | 17 | 7 |
| Biological sciences, total | 761 | 593 | 1 | 24 | 10 | 59 | 12 | 62 |
| Anatomy | 5 | 3 | 0 | 1 | 0 | 1 | 0 | 0 |
| Biochemistry | 15 | 12 | 0 | 1 | 0 | 2 | 0 | 0 |
| Biology | 377 | 307 | 1 | 9 | 8 | 37 | 5 | 10 |
| Biometry/epidemiology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Biophysics | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Botany | 75 | 55 | 0 | 0 | 0 | 0 | 0 | 20 |
| Cell biology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ecology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entomology/parasitology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Genetics | 30 | 13 | 0 | 3 | 0 | 7 | 0 | 7 |
| Microbio., immunology, & virology | 49 | 42 | 0 | 2 | 1 | 0 | 4 | 0 |
| Nutrition | 78 | 49 | 0 | 2 | 0 | 5 | 2 | 20 |
| Pathology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmacology | 29 | 25 | 0 | 1 | 0 | 1 | 0 | 2 |
| Physiology | 42 | 33 | 0 | 5 | 0 | 2 | 0 | 2 |
| Zoology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Biosciences, n.e.c. | 61 | 54 | 0 | 0 | 1 | 4 | 1 | 1 |
| Psychology | 689 | 490 | 0 | 7 | 4 | 166 | 1 | 21 |
| Social sciences, total | 1,522 | 1,148 | 1 | 11 | 9 | 183 | 41 | 129 |
| Agricultural economics | 23 | 17 | 0 | 0 | 0 | 1 | 0 | 5 |
| Anthropology (cultural & social) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Economics (except agricultural) | 55 | 27 | 0 | 1 | 0 | 2 | 4 | 21 |
| Geography | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Linguistics | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Political science | 848 | 668 | 0 | 9 | 7 | 106 | 20 | 38 |
| Sociology | 265 | 191 | 0 | 0 | 1 | 32 | 11 | 30 |
| Sociology/anthropology | 63 | 44 | 0 | 0 | 0 | 4 | 1 | 14 |
| Social sciences, other | 268 | 201 | 1 | 1 | 1 | 38 | 5 | 21 |
| Engineering, total | 531 | 284 | 0 | 30 | 9 | 54 | 25 | 129 |
| Aerospace engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Agricultural engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Biomedical engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chemical engineering | 35 | 11 | 0 | 0 | 0 | 5 | 1 | 18 |
| Civil engineering | 86 | 39 | 0 | 12 | 7 | 13 | 7 | 8 |
| Electrical engineering | 105 | 74 | 0 | 1 | 1 | 2 | 6 | 21 |
| Engineering science | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Industrial/manufacturing eng. | 52 | 38 | 0 | 9 | 0 | 3 | 2 | 0 |
| Mechanical engineering | 143 | 86 | 0 | 8 | 0 | 11 | 9 | 29 |
| Metallurgical/materials eng. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nuclear engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Engineering, other | 110 | 36 | 0 | 0 | 1 | 20 | 0 | 53 |

See explanatory information, if any, and SOURCE at end of table.

Table 49. Graduate students in science, engineering, and health fields in historically black colleges and universities, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

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| Field | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|--|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, health fields | 713 | 357 | 4 | 8 | 12 | 301 | 12 | 19 |
| Clinical fields | 90 | 18 | 0 | 0 | 1 | 69 | 2 | 0 |
| Dental sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nursing | 108 | 63 | 0 | 1 | 2 | 38 | 2 | 2 |
| Pharmaceutical sciences | 43 | 28 | 0 | 2 | 0 | 7 | 6 | 0 |
| Preventive medicine/community health | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Speech pathology/audiology | 368 | 215 | 4 | 1 | 5 | 130 | 2 | 11 |
| Veterinary sciences | 15 | 9 | 0 | 0 | 0 | 0 | 0 | 6 |
| Other health fields | 89 | 24 | 0 | 4 | 4 | 57 | 0 | 0 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 50. Graduate students in science and engineering fields in historically black colleges and universities, by geographic distribution, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 1 of 2

| Geographic distribution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|-------------------------------|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Total, all institutions | 4,796 | 3,279 | 4 | 244 | 43 | 567 | 155 | 504 |
| New England | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Connecticut | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Hampshire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rhode Island | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vermont | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Middle Atlantic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Jersey | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pennsylvania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| East North Central | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Illinois | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indiana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Michigan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ohio | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wisconsin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| West North Central | 14 | 6 | 0 | 0 | 0 | 8 | 0 | 0 |
| Iowa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kansas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minnesota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Missouri | 14 | 6 | 0 | 0 | 0 | 8 | 0 | 0 |
| Nebraska | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Dakota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Dakota | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Atlantic | 2,609 | 1,866 | 3 | 149 | 27 | 252 | 107 | 205 |
| Delaware | 36 | 13 | 0 | 1 | 1 | 21 | 0 | 0 |
| District of Columbia | 801 | 601 | 0 | 36 | 1 | 44 | 13 | 106 |
| Florida | 243 | 147 | 0 | 15 | 9 | 31 | 2 | |
| Georgia | 363 | 297 | 0 | 6 | 11 | 1 | 14 | 34 |
| Maryland | 249 | 143 | 0 | 32 | 3 | 54 | 15 | 2 |
| North Carolina | 764 | 550 | 2 | 48 | 2 | 83 | 19 | 60 |
| South Carolina | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Virginia | 153 | 115 | 1 | 11 | 0 | 18 | 7 | 1 |
| West Virginia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| East South Central | 1,260 | 778 | 1 | 53 | 5 | 200 | 22 | 201 |
| Alabama | 377 | 235 | 0 | 13 | 0 | 21 | 17 | 91 |
| Kentucky | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mississippi | 324 | 232 | 1 | 23 | 1 | 21 | 0 | 46 |
| Tennessee | 559 | 311 | 0 | 17 | 4 | 158 | 5 | 64 |
| West South Central | 913 | 629 | 0 | 42 | 11 | 107 | 26 | 98 |
| Arkansas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Louisiana | 441 | 339 | 0 | 28 | 1 | 54 | 13 | 6 |
| Oklahoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Texas | 472 | 290 | 0 | 14 | 10 | 53 | 13 | 92 |

See explanatory information, if any, and SOURCE at end of table.

Table 50. Graduate students in science and engineering fields in historically black colleges and universities, by geographic distribution, citizenship, and racial/ethnic background of U.S. citizens: 1997

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| Geographic distribution | Total | Racial/ethnic background of U.S. citizens | | | | | | Non-U.S. citizens |
|-------------------------|-------|---|--------------------------------|------------------------|----------|--------------------|------------------|-------------------|
| | | Black non-Hispanic | American Indian/Alaskan Native | Asian/Pacific Islander | Hispanic | White non-Hispanic | Other or unknown | |
| Mountain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arizona | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Colorado | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Idaho | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Montana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nevada | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Mexico | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Utah | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wyoming | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacific | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Alaska | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| California | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hawaii | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oregon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Washington | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Outlying areas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 51. Black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field: 1990-97

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, all black students | | | | | | | | |
| Total, all surveyed fields | 15,216 | 16,407 | 18,487 | 20,439 | 21,177 | 22,154 | 22,976 | 23,534 |
| Total, science and engineering fields | 12,774 | 13,691 | 15,445 | 17,118 | 17,611 | 18,283 | 19,071 | 19,363 |
| Sciences, total | 10,988 | 11,666 | 13,071 | 14,559 | 14,827 | 15,427 | 16,176 | 16,489 |
| Physical sciences | 654 | 699 | 807 | 843 | 856 | 897 | 986 | 952 |
| Earth, atmos., and ocean sciences | 123 | 141 | 202 | 227 | 203 | 219 | 223 | 206 |
| Mathematical sciences | 511 | 524 | 579 | 710 | 673 | 689 | 711 | 657 |
| Computer sciences | 985 | 1,093 | 1,108 | 1,168 | 1,182 | 1,155 | 1,278 | 1,303 |
| Agricultural sciences | 158 | 145 | 209 | 235 | 239 | 294 | 268 | 229 |
| Biological sciences | 1,249 | 1,317 | 1,493 | 1,737 | 1,709 | 1,879 | 2,010 | 2,171 |
| Psychology | 2,226 | 2,455 | 2,758 | 3,284 | 3,529 | 3,359 | 3,455 | 3,641 |
| Social sciences | 5,082 | 5,292 | 5,915 | 6,355 | 6,436 | 6,935 | 7,245 | 7,330 |
| Engineering | 1,786 | 2,025 | 2,374 | 2,559 | 2,784 | 2,856 | 2,895 | 2,874 |
| Health fields | 2,442 | 2,716 | 3,042 | 3,321 | 3,566 | 3,871 | 3,905 | 4,171 |
| Black students in HBCUs | | | | | | | | |
| Total, all surveyed fields | 2,004 | 2,090 | 2,232 | 2,627 | 2,982 | 3,189 | 3,384 | 3,636 |
| Total, science and engineering fields | 1,913 | 1,959 | 2,075 | 2,433 | 2,768 | 2,906 | 3,174 | 3,279 |
| Sciences, total | 1,771 | 1,816 | 1,898 | 2,221 | 2,515 | 2,612 | 2,883 | 2,995 |
| Physical sciences | 174 | 190 | 179 | 211 | 231 | 253 | 279 | 286 |
| Earth, atmos., and ocean sciences | 14 | 24 | 30 | 42 | 30 | 38 | 34 | 43 |
| Mathematical sciences | 108 | 107 | 111 | 169 | 155 | 139 | 157 | 128 |
| Computer sciences | 159 | 189 | 200 | 190 | 227 | 210 | 217 | 219 |
| Agricultural sciences | 34 | 37 | 70 | 84 | 102 | 130 | 111 | 88 |
| Biological sciences | 278 | 278 | 306 | 403 | 453 | 492 | 543 | 593 |
| Psychology | 313 | 317 | 352 | 428 | 489 | 413 | 430 | 490 |
| Social sciences | 691 | 674 | 650 | 694 | 828 | 937 | 1,112 | 1,148 |
| Engineering | 142 | 143 | 177 | 212 | 253 | 294 | 291 | 284 |
| Health fields | 91 | 131 | 157 | 194 | 214 | 283 | 210 | 357 |
| Percent in HBCUs | | | | | | | | |
| Total, all surveyed fields | 13.2 | 12.7 | 12.1 | 12.9 | 14.1 | 14.4 | 14.7 | 15.4 |
| Total, science and engineering fields | 15.0 | 14.3 | 13.4 | 14.3 | 15.7 | 15.9 | 16.6 | 16.9 |
| Sciences, total | 16.1 | 15.6 | 14.5 | 15.4 | 17.0 | 16.9 | 17.8 | 18.2 |
| Physical sciences | 26.6 | 27.2 | 22.2 | 24.9 | 27.0 | 28.2 | 28.3 | 30.0 |
| Earth, atmos., and ocean sciences | 11.4 | 17.0 | 14.9 | 18.5 | 14.8 | 17.4 | 15.2 | 20.9 |
| Mathematical sciences | 21.1 | 20.4 | 19.2 | 25.9 | 23.0 | 20.2 | 22.1 | 19.5 |
| Computer sciences | 16.1 | 17.3 | 18.1 | 16.3 | 19.2 | 18.2 | 17.0 | 16.8 |
| Agricultural sciences | 21.5 | 25.5 | 33.5 | 41.0 | 42.7 | 44.2 | 41.4 | 38.4 |
| Biological sciences | 22.3 | 21.1 | 20.5 | 23.1 | 26.5 | 26.2 | 27.0 | 27.3 |
| Psychology | 14.1 | 12.9 | 12.8 | 12.8 | 13.9 | 12.3 | 12.4 | 13.5 |
| Social sciences | 13.6 | 12.7 | 11.0 | 10.9 | 12.9 | 13.5 | 15.3 | 15.7 |
| Engineering | 8.0 | 7.1 | 7.5 | 8.2 | 9.1 | 10.3 | 10.1 | 9.9 |
| Health fields | 3.7 | 4.8 | 5.2 | 5.8 | 6.0 | 7.3 | 5.4 | 8.6 |

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 52. Black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field and sex: 1994-97

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| Field | Men | | | | Women | | | |
|--|-------|-------|-------|-------|--------|--------|--------|--------|
| | 1994 | 1995 | 1996 | 1997 | 1994 | 1995 | 1996 | 1997 |
| Total, all black students | | | | | | | | |
| Total, all surveyed fields | 8,669 | 8,934 | 8,974 | 9,111 | 12,508 | 13,220 | 14,002 | 14,423 |
| Total, science and engineering fields | 8,049 | 8,211 | 8,253 | 8,344 | 9,562 | 10,072 | 10,818 | 11,019 |
| Sciences, total | 6,082 | 6,254 | 6,301 | 6,385 | 8,745 | 9,173 | 9,875 | 10,104 |
| Physical sciences | 497 | 529 | 550 | 508 | 359 | 368 | 436 | 444 |
| Earth, atmospheric, and ocean sciences | 118 | 117 | 116 | 105 | 85 | 102 | 107 | 101 |
| Mathematical sciences | 343 | 385 | 368 | 348 | 330 | 304 | 343 | 309 |
| Computer sciences | 696 | 652 | 718 | 768 | 486 | 503 | 560 | 535 |
| Agricultural sciences | 118 | 150 | 131 | 105 | 121 | 144 | 137 | 124 |
| Biological sciences | 671 | 691 | 725 | 783 | 1,038 | 1,188 | 1,285 | 1,388 |
| Psychology | 851 | 817 | 810 | 908 | 2,678 | 2,542 | 2,645 | 2,733 |
| Social sciences | 2,788 | 2,913 | 2,883 | 2,860 | 3,648 | 4,022 | 4,362 | 4,470 |
| Engineering | 1,967 | 1,957 | 1,952 | 1,959 | 817 | 899 | 943 | 915 |
| Health fields | 620 | 723 | 721 | 767 | 2,946 | 3,148 | 3,184 | 3,404 |
| Black students in HBCUs | | | | | | | | |
| Total, all surveyed fields | 1,265 | 1,331 | 1,383 | 1,463 | 1,717 | 1,858 | 2,001 | 2,173 |
| Total, science and engineering fields | 1,226 | 1,273 | 1,343 | 1,396 | 1,542 | 1,633 | 1,831 | 1,883 |
| Sciences, total | 1,048 | 1,078 | 1,152 | 1,201 | 1,467 | 1,534 | 1,731 | 1,794 |
| Physical sciences | 127 | 145 | 161 | 151 | 104 | 108 | 118 | 135 |
| Earth, atmospheric, and ocean sciences | 12 | 16 | 14 | 17 | 18 | 22 | 20 | 26 |
| Mathematical sciences | 69 | 79 | 80 | 71 | 86 | 60 | 77 | 57 |
| Computer sciences | 125 | 92 | 105 | 117 | 102 | 118 | 112 | 102 |
| Agricultural sciences | 42 | 57 | 54 | 42 | 60 | 73 | 57 | 46 |
| Biological sciences | 187 | 194 | 202 | 218 | 266 | 298 | 341 | 375 |
| Psychology | 132 | 114 | 108 | 171 | 357 | 299 | 322 | 319 |
| Social sciences | 354 | 381 | 428 | 414 | 474 | 556 | 684 | 734 |
| Engineering | 178 | 195 | 191 | 195 | 75 | 99 | 100 | 89 |
| Health fields | 39 | 58 | 40 | 67 | 175 | 225 | 170 | 290 |
| Percent in HBCUs | | | | | | | | |
| Total, all surveyed fields | 14.6 | 14.9 | 15.4 | 16.1 | 13.7 | 14.1 | 14.3 | 15.1 |
| Total, science and engineering fields | 15.2 | 15.5 | 16.3 | 16.7 | 16.1 | 16.2 | 16.9 | 17.1 |
| Sciences, total | 17.2 | 17.2 | 18.3 | 18.8 | 16.8 | 16.7 | 17.5 | 17.8 |
| Physical sciences | 25.6 | 27.4 | 29.3 | 29.7 | 29.0 | 29.3 | 27.1 | 30.4 |
| Earth, atmospheric, and ocean sciences | 10.2 | 13.7 | 12.1 | 16.2 | 21.2 | 21.6 | 18.7 | 25.7 |
| Mathematical sciences | 20.1 | 20.5 | 21.7 | 20.4 | 26.1 | 19.7 | 22.4 | 18.4 |
| Computer sciences | 18.0 | 14.1 | 14.6 | 15.2 | 21.0 | 23.5 | 20.0 | 19.1 |
| Agricultural sciences | 35.6 | 38.0 | 41.2 | 40.0 | 49.6 | 50.7 | 41.6 | 37.1 |
| Biological sciences | 27.9 | 28.1 | 27.9 | 27.8 | 25.6 | 25.1 | 26.5 | 27.0 |
| Psychology | 15.5 | 14.0 | 13.3 | 18.8 | 13.3 | 11.8 | 12.2 | 11.7 |
| Social sciences | 12.7 | 13.1 | 14.8 | 14.5 | 13.0 | 13.8 | 15.7 | 16.4 |
| Engineering | 9.0 | 10.0 | 9.8 | 10.0 | 9.2 | 11.0 | 10.6 | 9.7 |
| Health fields | 6.3 | 8.0 | 5.5 | 8.7 | 5.9 | 7.1 | 5.3 | 8.5 |

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 53. Full-time black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field: 1990-97

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| Field | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|-------|-------|--------|--------|--------|--------|--------|--------|
| Total, all black students | | | | | | | | |
| Total, all surveyed fields | 8,112 | 8,863 | 10,219 | 11,387 | 11,965 | 12,501 | 12,989 | 13,558 |
| Total, science and engineering fields | 7,029 | 7,692 | 8,904 | 9,903 | 10,343 | 10,668 | 10,986 | 11,415 |
| Sciences, total | 6,079 | 6,552 | 7,545 | 8,413 | 8,640 | 8,978 | 9,323 | 9,736 |
| Physical sciences | 488 | 529 | 630 | 690 | 709 | 729 | 769 | 741 |
| Earth, atmos., and ocean sciences | 85 | 97 | 128 | 142 | 129 | 136 | 130 | 138 |
| Mathematical sciences | 264 | 276 | 331 | 411 | 412 | 423 | 422 | 387 |
| Computer sciences | 367 | 446 | 411 | 460 | 465 | 485 | 475 | 495 |
| Agricultural sciences | 133 | 113 | 163 | 162 | 162 | 227 | 194 | 176 |
| Biological sciences | 931 | 997 | 1,119 | 1,348 | 1,369 | 1,450 | 1,513 | 1,734 |
| Psychology | 1,268 | 1,424 | 1,656 | 1,854 | 2,046 | 2,028 | 2,087 | 2,218 |
| Social sciences | 2,543 | 2,670 | 3,107 | 3,346 | 3,348 | 3,500 | 3,733 | 3,847 |
| Engineering | 950 | 1,140 | 1,359 | 1,490 | 1,703 | 1,690 | 1,663 | 1,679 |
| Health fields | 1,083 | 1,171 | 1,315 | 1,484 | 1,622 | 1,833 | 2,003 | 2,143 |
| Black students in HBCUs | | | | | | | | |
| Total, all surveyed fields | 1,162 | 1,234 | 1,289 | 1,604 | 1,951 | 2,004 | 2,086 | 2,310 |
| Total, science and engineering fields | 1,098 | 1,158 | 1,201 | 1,484 | 1,807 | 1,841 | 1,954 | 2,070 |
| Sciences, total | 997 | 1,046 | 1,075 | 1,300 | 1,588 | 1,591 | 1,735 | 1,849 |
| Physical sciences | 114 | 136 | 130 | 178 | 188 | 198 | 217 | 215 |
| Earth, atmos., and ocean sciences | 6 | 12 | 11 | 24 | 15 | 8 | 9 | 22 |
| Mathematical sciences | 53 | 58 | 62 | 106 | 98 | 89 | 99 | 79 |
| Computer sciences | 71 | 93 | 90 | 93 | 113 | 92 | 90 | 114 |
| Agricultural sciences | 26 | 24 | 57 | 32 | 46 | 92 | 67 | 69 |
| Biological sciences | 214 | 212 | 228 | 333 | 375 | 380 | 419 | 470 |
| Psychology | 127 | 138 | 145 | 193 | 284 | 262 | 259 | 287 |
| Social sciences | 386 | 373 | 352 | 341 | 469 | 470 | 575 | 593 |
| Engineering | 101 | 112 | 126 | 184 | 219 | 250 | 219 | 221 |
| Health fields | 64 | 76 | 88 | 120 | 144 | 163 | 132 | 240 |
| Percent in HBCUs | | | | | | | | |
| Total, all surveyed fields | 14.3 | 13.9 | 12.6 | 14.2 | 16.3 | 16.0 | 16.1 | 17.0 |
| Total, science and engineering fields | 15.6 | 15.1 | 13.5 | 15.2 | 17.5 | 17.3 | 17.8 | 18.1 |
| Sciences, total | 16.4 | 16.0 | 14.2 | 15.7 | 18.4 | 17.7 | 18.6 | 19.0 |
| Physical sciences | 23.4 | 25.7 | 20.6 | 25.6 | 26.5 | 27.2 | 28.2 | 29.0 |
| Earth, atmos., and ocean sciences | 7.1 | 12.4 | 8.6 | 16.9 | 11.6 | 5.9 | 6.9 | 15.9 |
| Mathematical sciences | 20.1 | 21.0 | 18.7 | 29.2 | 23.8 | 21.0 | 23.5 | 20.4 |
| Computer sciences | 19.3 | 20.9 | 21.9 | 20.2 | 24.3 | 19.0 | 18.9 | 23.0 |
| Agricultural sciences | 19.5 | 21.2 | 35.0 | 26.1 | 28.4 | 40.5 | 34.5 | 39.2 |
| Biological sciences | 23.0 | 21.3 | 20.4 | 24.6 | 27.4 | 26.2 | 27.7 | 27.1 |
| Psychology | 10.0 | 9.7 | 8.8 | 10.2 | 13.9 | 12.9 | 12.4 | 12.9 |
| Social sciences | 15.2 | 14.0 | 11.3 | 10.1 | 14.0 | 13.4 | 15.4 | 15.4 |
| Engineering | 10.6 | 9.8 | 9.3 | 12.2 | 12.9 | 14.8 | 13.2 | 13.2 |
| Health fields | 5.9 | 6.5 | 6.7 | 8.1 | 8.9 | 8.9 | 6.6 | 11.2 |

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 54. Full-time black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field and sex: 1994-97

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| Field | Men | | | | Women | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1994 | 1995 | 1996 | 1997 | 1994 | 1995 | 1996 | 1997 |
| Total, all black students | | | | | | | | |
| Total, all surveyed fields | 5,114 | 5,212 | 5,245 | 5,376 | 6,851 | 7,289 | 7,744 | 8,182 |
| Total, science and engineering fields | 4,772 | 4,807 | 4,786 | 4,906 | 5,571 | 5,861 | 6,200 | 6,509 |
| Sciences, total | 3,607 | 3,691 | 3,695 | 3,786 | 5,033 | 5,287 | 5,628 | 5,950 |
| Physical sciences | 409 | 434 | 441 | 393 | 300 | 295 | 328 | 348 |
| Earth, atmospheric, and ocean sciences | 79 | 78 | 68 | 71 | 50 | 58 | 62 | 67 |
| Mathematical sciences | 208 | 242 | 221 | 209 | 204 | 181 | 201 | 178 |
| Computer sciences | 283 | 285 | 281 | 310 | 182 | 200 | 194 | 185 |
| Agricultural sciences | 82 | 105 | 83 | 83 | 80 | 122 | 111 | 93 |
| Biological sciences | 546 | 543 | 562 | 636 | 823 | 907 | 951 | 1,098 |
| Psychology | 507 | 489 | 497 | 539 | 1,539 | 1,539 | 1,590 | 1,679 |
| Social sciences | 1,493 | 1,515 | 1,542 | 1,545 | 1,855 | 1,985 | 2,191 | 2,302 |
| Engineering | 1,165 | 1,116 | 1,091 | 1,120 | 538 | 574 | 572 | 559 |
| Health fields | 342 | 405 | 459 | 470 | 1,280 | 1,428 | 1,544 | 1,673 |
| Black students in HBCUs | | | | | | | | |
| Total, all surveyed fields | 867 | 848 | 865 | 941 | 1,084 | 1,156 | 1,221 | 1,369 |
| Total, science and engineering fields | 838 | 825 | 846 | 905 | 969 | 1,016 | 1,108 | 1,165 |
| Sciences, total | 683 | 662 | 707 | 755 | 905 | 929 | 1,028 | 1,094 |
| Physical sciences | 105 | 117 | 129 | 113 | 83 | 81 | 88 | 102 |
| Earth, atmospheric, and ocean sciences | 8 | 6 | 5 | 9 | 7 | 2 | 4 | 13 |
| Mathematical sciences | 39 | 51 | 51 | 45 | 59 | 38 | 48 | 34 |
| Computer sciences | 64 | 40 | 52 | 70 | 49 | 52 | 38 | 44 |
| Agricultural sciences | 23 | 35 | 30 | 34 | 23 | 57 | 37 | 35 |
| Biological sciences | 157 | 148 | 158 | 179 | 218 | 232 | 261 | 291 |
| Psychology | 72 | 63 | 58 | 77 | 212 | 199 | 201 | 210 |
| Social sciences | 215 | 202 | 224 | 228 | 254 | 268 | 351 | 365 |
| Engineering | 155 | 163 | 139 | 150 | 64 | 87 | 80 | 71 |
| Health fields | 29 | 23 | 19 | 36 | 115 | 140 | 113 | 204 |
| Percent in HBCUs | | | | | | | | |
| Total, all surveyed fields | 17.0 | 16.3 | 16.5 | 17.5 | 15.8 | 15.9 | 15.8 | 16.7 |
| Total, science and engineering fields | 17.6 | 17.2 | 17.7 | 18.4 | 17.4 | 17.3 | 17.9 | 17.9 |
| Sciences, total | 18.9 | 17.9 | 19.1 | 19.9 | 18.0 | 17.6 | 18.3 | 18.4 |
| Physical sciences | 25.7 | 27.0 | 29.3 | 28.8 | 27.7 | 27.5 | 26.8 | 29.3 |
| Earth, atmospheric, and ocean sciences | 10.1 | 7.7 | 7.4 | 12.7 | 14.0 | 3.4 | 6.5 | 19.4 |
| Mathematical sciences | 18.8 | 21.1 | 23.1 | 21.5 | 28.9 | 21.0 | 23.9 | 19.1 |
| Computer sciences | 22.6 | 14.0 | 18.5 | 22.6 | 26.9 | 26.0 | 19.6 | 23.8 |
| Agricultural sciences | 28.0 | 33.3 | 36.1 | 41.0 | 28.7 | 46.7 | 33.3 | 37.6 |
| Biological sciences | 28.8 | 27.3 | 28.1 | 28.1 | 26.5 | 25.6 | 27.4 | 26.5 |
| Psychology | 14.2 | 12.9 | 11.7 | 14.3 | 13.8 | 12.9 | 12.6 | 12.5 |
| Social sciences | 14.4 | 13.3 | 14.5 | 14.8 | 13.7 | 13.5 | 16.0 | 15.9 |
| Engineering | 13.3 | 14.6 | 12.7 | 13.4 | 11.9 | 15.2 | 14.0 | 12.7 |
| Health fields | 8.5 | 5.7 | 4.1 | 7.7 | 9.0 | 9.8 | 7.3 | 12.2 |

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering